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Research Findings Significant to Priority-Setting for Mental Health Services

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RESEARCH FINDINGS SIGNIFICANT TO PRIORITY-SETTING FOR MENTAL HEALTH SERVICES

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FOREWORD

The problem of developing criteria by which priorities may be applied to the allocation of scarce resources is particularly difficult in the mental health field, always one in which many and varied options present themselves. This Symposium is addressed towards one possible approach, that of applying the findings of investigative research to the priorization process.

Thanks are due to many people for the work and enthusiasm they brought to developing this Symposium - to the Consultative Group on Mental Health Research chaired by Dr. Roger Bland of Edmonton, who initiated and developed the concept and theme; in particular Dr. Alexander Leighton of Halifax; Dr. John Clayton, Consultant in Psychiatry to the Division, Ivy Williams who co-ordinated and arranged the meeting and Dr. Margaret Brillinger who provided the text of the proceedings. We are also grateful to Dennis Kealey, who, as Acting Assistant Deputy Minister, Health Services and Promotion Branch, supported and approved this Departmental event.

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Key-Note Address

THE EPIDEMIOLOGY OF MENTAL HEALTH DISORDERS AND PUBLIC HEALTH POLICY

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ABSTRACT

In spite of the widespread prevalence of mental disorders around the world and in spite of the evidence that epidemiological research has produced, mental health care programs have been given low priority and research findings have had little impact on policy-making. Four hypotheses are offered to explain this apparent lack of influence: (1) inadequacies in the selection and methods of communicating findings to policy-makers, (2) the use of findings to confirm decisions already made rather than to chart future decisions, (3) the lag between production of data and their infiltration into policies and programs, and (4) a combination of the previous three. Mental health decision-makers must first define what mental health is. Eliminating mental disease, while a noble goal, does not in itself ensure mental health and well-being. We must develop an epidemiology of states of health and stress the importance of enabling people to have a full mental life.

Thank you very much. It is a great pleasure to be here. It is the last day of my brief stay in Canada in which I have had the opportunity to meet some of you. I was very impressed and am leaving with a very vivid wish to return for another opportunity to learn more about the various things that happen in Canada. I am also very grateful to the Government of Canada for making this trip possible and for also offering this opportunity to share with you some of the thoughts that I have about epidemiology and mental health policy.

My comments this morning will deal with the curious relationship that exists between data and epidemiological research in general and mental health policy formulation. The fact, for example, that there are some 300 million people in the world who suffer from disorders of sufficient severity to warrant an intervention and who, because of such disorders will have their lives marred, should cause an influx of money, funds, facilities, and enthusiasm to mental health, but that is not so. We are also probably causing an epidemic of disabilities as Kramer, for example, has predicted, and an enormous amount of disability that will probably be caused by a disregard for psychosocial factors which determine the change from an impairment into disability; these factors should cause a fantastic amount of money to be channelled into psychosocial pursuits. That is not so either. The fact that the world is undergoing a very significant socioeconomic and cultural change very likely causing major changes in the lives of individuals and communities would also probably indicate that we should do much more and that people would be at least consulted about this. But none of this is happening--not on a world-wide scale, nor on a national scale, with rare exceptions. It seems that in spite of the evidence that the epidemiological research has produced, mental health care programs and the care for the mentally ill have been given low priorities in most countries of the world. Behavioural sciences also get very little money for research and even less recognition. Major sociocultural and economic interventions and policy changes are, as a rule, carried out without seeking or heeding advice from mental health specialists. This appears to be so in many countries. The situation is slightly different with concerns for mental health, but here again the same paradox appears. For example, Mexico and France decided to put mental health among the first three of their priorities for their national plans--not with their national health plans, but with national development plans--while psychiatry falls last among the priorities for the health plans. Paradoxically, there are no data on which we could base anything for mental health, while there are a lot of data which we could use in thinking about mental illness.

It seems, therefore, that health decision-makers do not listen to what scientists have to say. They act, paying no attention, it seems, to findings of painstaking research. They commit avoidable errors--I hasten to add, without justification that is reasonable--and rather than using data, they fund more research of the same kind applied for by researchers who are in advance quite convinced and have ample proof from the past that nobody will take into account what they find at the end of the road. According to all accounts those outside the health sector as well as the general public are no different. Although epidemiological information about mental disease, impairment, and disabilities is offered to all, most people pay no serious attention to it. They tend to give preference to data about sources of pleasure and ways of increasing their physical and mental capacity. The government of Granada some time ago went to the United Nations suggesting that everybody should meditate for an hour a day because that would remove war. There was no great enthusiasm about that proposal, but it was made. In contrast, there was no proposal for more concrete things.

Doctors and other professionals who are in the business of healing do not seem to be particularly concerned about epidemiological data either. If you ask them, they state with much conviction that they have rarely had any clear demonstration that knowing an epidemiological fact has affected a direct practical consequence or was useful to their daily work.

Thus, it is evident that neither decision-makers, nor those who make policy in other social sectors, nor the general public, nor the professional groups listen to epidemiologists. They act for a variety of emotional reasons, disregarding evidence that epidemiologists can produce. They seem to prefer irrationality in decision-making, and curiously seem no worse for it. If that is so, then the famous dicta about the utility of epidemiological research for a variety of purposes that Morris and others have so eloquently described are invalid. It is only the epidemiologists who are foolish enough to believe that their data can influence policy-making.

On the other hand one cannot exclude the possibility that on some occasions, in some countries, in weak moments of those countries, and for a variety of unrelated reasons, epidemiological data have in fact had a direct influence on decision-making and policy-formulation. The reduction in the number of hospital beds in Britain is sometimes quoted as being a classical example of good use of data for policy-formulation. I was even told that in New Brunswick in this country there was such an occasion where data have been used in policy-formulation. But for each example of impact, there are hundreds of others of no impact. Furthermore it proves very difficult to produce a direct example of impact of data on policy in most countries; even if there is impact upon action, data seem to have no effect on policy. Furthermore, on close examination, it seems that many of the examples of impact dissolve as soon as you try to examine them in detail to establish to what extent these data have done anything for policy formulation.

Fortunately, since no one has produced any definite evidence of our ability to measure the impact of epidemiological information, I feel that I am allowed to speculate and overgeneralize about the apparent lack of influence. I would like to propose to you four hypotheses to explain this situation. My first hypothesis is that the lamentation about the lack of readiness to use epidemiological data is unfounded and exaggerated and that it stems from producers of irrelevant data which they present in an incomprehensible manner to their own people. My second hypothesis is that the lamentation is well justified and that nobody in the policy-making circles wants epidemiological evidence until after the decision is made when data will be requested to support those decisions and used, as they say, selectively. My third hypothesis is that the data which are produced are in fact used, but that between the time of production and the time of use there is an incubation or latency period during which decisions based on data of a much earlier vintage seem to be taken. Data in this hypothesis have a modus operandi like a slow virus. You ingest it and then nothing happens for a long time. Much later, something happens as a result. In between are results of earlier ingestions of slow-virus data. Finally the fourth hypothesis--it's really a cowardly hypothesis--is one by which it is assumed that all three of the previous ones are to some extent true and to some extent false, so nobody can catch me out.

Now my first hypothesis about the irrelevance of data produced by the epidemiologists of mental disorder is built on the fact that, for a variety of reasons inherent in research and policy-making, it is only rarely possible to produce data that are relevant for policy options available to decision-makers at the time of data production. Valid or invalid information is relevant only when it can be directly related in time and space to the concerns and needs of the consumer--in this instance the policy-makers. Hence even the most fascinating findings are irrelevant for policy-making unless they are ready just at the time when they are needed. As all of you who have been in research or in policy-making know, such a coincidence in time is a matter of very low probability.

Data are also irrelevant for policy-making if they are expressed in a register different from that which the policy-makers are using. To state, for example, that there are 20 new cases of schizophrenia per 100 000 population per year is not relevant data for most decision-makers, who have to allocate resources, marshal funds, protect the government from embarrassment, get re-elected, and satisfy vociferous professionals, pressure groups, and lobbies. The 20 per 100 000 figure should come to them with additional facts including, for example, the likely prevalence of schizophrenia for the area for which they are responsible and from which they will be re-elected. Or they should be given figures about the level of disability that the disease is likely to cause in that culture. Or they need to hear evidence of whether it matters if the disease is left untreated. Or they should be given information about what currently happens to those who are ill and about whether any unpleasant consequences for the community, for some important subgroup of the population, for the health services, or for the decision-maker himself will occur if he does nothing.

The swift reaction--almost an overkill of information--to drug dependence in adolescence for middle- and upper-class families that recently occurred in some Asian countries (Indonesia, for example) makes the point about information-relevance extremely clearly--better than any theoretical treatise--particularly when this reaction is compared to the sluggish shrugging of shoulders usually given as an answer to information about, say, the 100 times higher prevalence of mental retardation in those very same countries.

I think it is worth saying that the case in epidemiological research is in no way similar to a case which can be used in decision-making about health. Five criteria must be present. Firstly, it is not enough that a person has a disorder to be counted (in fact, it doesn't matter so much whether he has a disorder). It is also important that it be recognized as a disorder by someone. Thirdly, it must be a case in which the patient or community or decision-maker or family wants to have an action taken. Fourthly, a treatment or some intervention must be possible and likely to be effective. Finally, all of what we do must be acceptable from ethical, political, and other grounds. If it satisfies those five criteria, then a case from epidemiology is also a case in decision-making.

Furthermore, I think that the decision-makers are more likely to react to statements, for example, that in Europe for each traffic accident death, there is also a suicide death, that for every person dying through suicide there are 10 people who attempt it, and that approximately 30% of all expenditure in emergency services is due to suicide attempts. It is much more likely that these statements will cause a reaction than the statement that there are 14 deaths per 100 000 inhabitants per year, mostly among the elderly and often among those with chronic incurable disease. It is better to state that there are 100 000 suicide deaths per year than to speak in prevalence figures as we are accustomed to doing. It is as if, in addition to his training in epidemiological methods, the epidemiologist should also have training in public speaking and in presenting data to those who are likely to decide about what is going to happen next.

Now, in addition to data which are irrelevant, untimely, or not speaking directly to the decision-maker's problems, presenting information can also be very incomprehensible for other reasons. All of us involved in science act on the assumption that decision-makers are like us when in fact they are not. They think differently. The producers of data about mental disorders assume that decision-makers must be the same and must share the same problems and the same desires. Why, for example, should anyone want to do anything about the mildly retarded? They do not seem to request it. Their relatives do not complain too much. They do not die from it. The world is made of all kinds of people anyway, so why do anything? The value system of epidemiologists or mental health experts, who believe that the enhancement of mental capacity and a full mental life are the most desirable goals of health efforts, is not necessarily the value system of other health professions, let alone the value system of the decision-makers; neglecting this fact will, I think, ensure that the data are neither comprehended nor having any impact.

Of course, both irrelevance and incomprehensibility can be easily achieved by presenting the material--what you have--to the wrong people. Only too frequently epidemiologists forget to apply their own science to the patterns of decision-making in their own settings. Methods for the study of social bonds and various other methods are perhaps in a primitive state, but even the little that we know about searching for the power fulcrum is not usually used when data are presented. Most of the best information about mental disorders is published in obscure journals which are difficult to obtain even if you are a member of the profession. Not infrequently, unfortunately, after a number of bitter experiences epidemiologists withdrew from any attempt to make their data bear on policy-making, concentrating instead on writing for their epidemiological colleagues without any efforts to give their paper the taste of life that might help to convince people who are not of their opinion from the beginning.

Now my second hypothesis is that those who have to make decisions and formulate policies do not want to hear or do not care about epidemiological findings concerning mental disorders. Reasons for this may be easily found. First, many of the health decision-makers in the world today were qualified without any training in mental health matters. They might have been exposed for a short period of time early in their training to a week or so of visitation to the local lunatic asylum during which brief time they might have been greatly amused by the curious behaviour of the inmates, happy that the crazies were locked up rather than roaming in the streets where they were an embarrassment to everybody, and mildly disgusted about the hygienic conditions in those hospitals. Sometimes they might have had genuine sympathy for those in the institutions. Very probably they were assured by their teachers, as occurs even today in some countries, that little if anything could be done and that after all, those people there are at least protected from the cold or from the heat or whatever else it may be.

A second reason for their lack of interest in epidemiological findings is that most decision-makers and policy-formulators dislike scientists for what they perceive to be their lack of concern about the gruelling business of administering health or other services. By and large the general public also dislikes eggheads. Consequently, decision-makers find support for their views in popular beliefs. Proposals that come from scientists are, in the opinion and experience of decision-makers, likely to be unrealistic and often difficult to explain. Also they lack the soothing information about the way to handle difficulties that will undoubtedly arise if a decision is made and thus one option given preference over others. Nor, unfortunately, is there in many of the proposals made by scientists much information about the indirect cost of accepting them. For example, no suggestions are made about what could be done to pacify all those other groups whose proposals are not put into action because yours was accepted.

A third reason for ignoring research data is that epidemiologists often present their data forgetting that decision-makers and legislators and other people have to hear the same fact frequently to start to believe in its veracity. A single presentation, no matter how solid the evidence, will not produce much reaction, even if comprehensible, even if timely, even if relevant and true. The same finding must be heard from other sources on other occasions. Policy-making is usually based on data but rarely directed by them. Data are, in a way, like a map of the world, but the directions which will be taken on that map--whether we should go east or west, up or down--do not depend on the map. The map is just there to help prevent falling down a ravine, or to warn where more trouble will arise if one goes in a particular direction.

I think that this difficulty can be further illustrated by the famous example of how one estimates needs for policy-makers. Epidemiology can produce figures from the prevalence of mental disorders in a population and sometimes these figures have been offered to decision-makers as an estimate of needs. Now that is never so. First, as described earlier, a case for an epidemiologist is not a case for a decision-maker. Second, the needs of patients, the needs of policy-makers, the needs of families, and the needs of communities are very rarely the same. In fact they overlap only in a small degree. Sometimes there are also needs of international work which overlap even less with the needs of the other four groups. Unless one is able to draw a diagram in which there will be an overlap between those different types of needs, the needs are not estimated.

In addition to these two facts--that is, the fact that the data are at best a map and the fact that the needs are not equal to prevalence figures--there are a number of other factors which enter into decision-making, political interests being an important example.

The fourth reason why decision-makers are reluctant to accept data is that the time-scale of legislators and policy-makers differs from the time-scale of the epidemiologist. The epidemiologist may propose preventive measures that will have beautiful results in, for example, 20 years. In contrast, the decision-maker's scale does not exceed about two years, by which time he must have results of that policy in hand, ready to show to others, which will ensure the success and survival of that policy and will ensure his own re-election in countries where he must be re-elected.

The fifth reason for the reluctance of decision-makers to accept policy advice from anybody is that, by nature, the decision-makers are people who don't like to be told what to do. They are very often leaders because of their personality, and their belief that they somehow know better than the rest translates itself into a charisma which makes people follow. Therefore they are very reluctant to give up this image and take advice, particularly if that advice is given by an academic teacher--as is the habit of many scientists--and particularly if that advice is given publicly, instructing those poor ignorants on how to proceed in future.

Now a sixth reason for this reluctance is the fact that, for a long time, psychiatry as compared to other disciplines such as surgery had no effective treatment methods in its arsenal. True, more recently there has been talk about psychopharmacology, but after all these are, as they say, only some symptomatic treatments (as if digitalis treatment is not). Many people do not agree with the effectiveness of these treatments either. Evidence of effectiveness of psychiatric treatment is also usually not common knowledge. Decision-makers therefore feel that the chances of achievement are slim and action might be wasteful; their energy might better go into something else.

A seventh reason is that epidemiology has generally had a place of honour in public health and in health policy-making because of the remarkable record of achievement to its credit, while in contrast the epidemiology of mental disorders is less well established and recognized, still under the challenge to produce evidence comparable to that of general epidemiology. The epidemiologists dealing with mental disorders may therefore be less well accepted by decision-makers. They are frequently distrusted by psychiatrists, who will inform the decision-makers on suitable occasions about their distrust and advise the decision-makers differently. Since psychiatrists are involved in treatment and consequently have greater access to decision-makers, their advice is likely to carry much weight.

Finally, psychiatrists in the eyes of decision-makers do not have the image of gung-ho managers of health. Therefore whatever they say is likely to be considered as contemplation rather than as advice on where to go. There are two more reasons why they don't like this information. One is that the decision-makers in general like to react to damage, to change, to emergencies, to imminent doom, or to embarrassment. None of these things applies to the mental health field. Mental illness is neither epidemic nor news. In one form or another it has always been present, and for a long time there was little that could be done to change it. Therefore the decision-makers accept epidemiological findings about mental disorders with quiet resignation and without any particular impatience to act.

Finally most decision-makers see mental health problems as competing with other health problems. I believe that this is the most damaging fallacy of all, and the one about which we have done least. Physical diseases do not render people immune to mental disorders. Having diarrhea is in no way invaccinated against depression. But mental health aspects of general health problems are usually not seen. Decision-makers in fact are very often convinced that there is an order of nature in which you can first deal with broken legs and then with bleeding and so forth, and in the end you can also concern yourself with the minds of people.

These are some of the reasons why I believe decision-makers do not want to hear from epidemiologists.

My third hypothesis to explain the lack of impact of information from psychiatric epidemiology on policy-making is that the lack of impact is only apparent, because the data takes a long time to seep through and activate policy-making mechanisms. This slow-virus hypothesis of information use seems to find its confirmation in many instances. For example with regard to smoking, there have been recent changes in legislation regarding behaviour in hotels or airports or other public places. The research evidence was produced many years ago and has only now had its full impact.

Similar long-term effects of information can be presupposed for a variety of other data received in the health field and elsewhere. It is of course most disquieting to speculate about the consequences that this hypothesis would have if it was confirmed. First, it would be necessary to restrict data input to information that is likely to retain its relevance 20 years from now. Second, there is no way in which one could disclaim responsibility for not using data in decision-making as is often done now, claiming that epidemiological information does not matter. Finally, if true in psychiatric epidemiology, this law of information use would probably hold in other fields as well. Effects of measures such as the abolition of capital punishment would be irrevocably present a generation from now.

My own preference, now, with these three hypotheses in hand is to believe that all three hypotheses are in part correct. It is true that decision-makers most of the time and for a variety of reasons are content not to have to introduce changes in health policies. It is also true that mental disease epidemiologists often produce data that are wrong in time and in form and that they try to give them for the wrong reasons and to the wrong people. Finally it cannot be denied that the nature of public action is such that there will be long delays between information input and policy change, regardless of subjects and individuals. This is at least a consoling thought for those many whose data seem to be having no impact for many years.

There is every reason to pursue action in these three hypothetical areas, that is to make an effort to change the attitude of decision-makers, to educate the psychiatric epidemiologists, and to carry out research on temporal effects of data. Perhaps this will help to give the data base in psychoepidemiology a chance to have much more practical impact as its theoretical significance deserves.

Now, should all this succeed--and I hope it will--still a new danger arises. Even at its best, the epidemiology of mental disorders will never be in a position to provide data on which to base action to promote mental health. For this, mental health policy-makers must first decide what mental health is. Mental health can be defined in different ways. It can be defined as an absence of disease. It can be defined as a reserve of strengths that people have that allows them to overcome exceptional stresses or difficulties. Or it can be defined as a state of balance between the individual and his surroundings, between oneself and others. It is only if you believe that mental health in fact is the absence of disease that mental disease epidemiology can help to promote mental health.

But this definition is not accurate. I believe that mental health is, in fact, closer to the second and third levels of definition. Therefore in formulating mental health policies, decision-makers have to reach into philosophy, religion, ethics, and history. Many of them may be reluctant to do so. It is so much more comfortable to extrapolate from mental disorders to mental health and from disease prevention to health promotion. This kind of thinking and action unfortunately is already happening in a variety of ways. If you could only remove mental illness, they say, mental health would improve. If you only knew the causes of mental disorders, you could prevent them and a blissful existence would begin immediately. But unfortunately the lifting of a boat from the ocean and putting it ashore for repainting does not significantly sink the ocean. The successful treatment of depression removes depression. It does not necessarily change mental health even in the individual who had the depressive condition.

It is no doubt useful and important for factors that may cause or exacerbate mental illness to be recommended as targets for public health action. However, removing those factors will not in itself necessarily promote mental health, nor may it be taken as an excuse for not doing something else about it. Among the steps that are necessary if you want to start serious action in this field is that we shall have to promote much more seriously an epidemiology of states of health rather than only of disease. Systematic studies of social bonds, of factors promoting psychosocial development in adverse conditions, attitudes about sickness in oneself and in others, the effectiveness of methods to avoid lifestyles conducive to failure, and studies of the distribution in natural states of health and functioning are probably among the topics that such an epidemiology could study. These would provide decision-makers with information on what to do to enhance mental health and enable people to have a full mental life--which is, after all, what makes them human.

Now I believe that improving our mental life is the ultimate goal of our existence--that portion of life which has to include coping with mental or physical diseases, worries and happiness, ideas and perceptions. Removing mental disease is undoubtedly a noble goal that can facilitate fuller mental life. In this sense mental disorder epidemiology can make a major contribution to policies leading to better health. It cannot and should not attempt to do more. For that we must not only develop an epidemiology of states of health but also accept as a mental attitude the predominant importance of mental life as a basis for our action for all other health action and, for that matter, also for all social endeavour.

Question: I want to express for myself, and I think on behalf of almost everybody here, a profound appreciation of the clarity and the comprehensiveness of this statement and to suggest that we shouldn't fool ourselves into thinking that this clarity is easily come by. This is the result of a great deal of experience, a great deal of hard thinking, and is extraordinarily helpful in trying to think out the best way to go about research, the best way to try to express it, some means for beginning to have more effect, and also to have a realistic idea about what it is we can do and what we cannot do. Thank you.

Question: This is a somewhat gloomy picture that you present, Norman. Are there a few examples which you would care to mention in which the impact of epidemiology has been successful? You have mentioned a few but I'm sure there must be a few more examples that might come to your mind. I would also like you to address the issue of how this has taken place at the international level, which you mentioned is an added, even more difficult dimension.

Dr. Sartorius: The examples, as I said, are few, and most often we can use epidemiological data as ammunition in battling the attitudes in the right direction. Decision-making in general, I believe, is a matter of having the coincidence of somebody who wants to do something and positive attitudes of those who can decide to let him do this particular thing. Epidemiological data can help particularly if they are expressed in an immediately graspable way, and I think that that has been happening, although it's of course more difficult to document. Recently we had a conference on registers of mental diseases and a colleague of mine, Professor Cooper from Nottingham, asked those present in the room if anyone who could demonstrate that the register had directly impacted on policy would stand up. These are registers which have been in operation for many years. None stood up. And yet I am convinced that the data which were presented or produced over the years have been very helpful in gradually changing attitudes and bringing a readiness to accept a view rather than a direct logical step from the view. I think that any decision of a good decision-maker is a compromise between the desirable and the least uncomfortable. Now, if we manage to bring the decision-makers into a position where they can see that to an extent it is desirable to do something for them, and to an extent it will appeal not only to their higher ethical ideals but also to their daily concerns, I think their minds will gradually switch to the direction where we want them to be.

Then the second most challenging thing will be to propose something that will in fact bear us out. And we haven't been so successful in this respect either, because many of the proposals that we have made about what could be done when the chances were given to do so have been a bit curious to say the least. Sometimes they have been done with total disregard for the fact that we are introducing a new thing on a broad scale all at once. A law is passed and mental health centres are created all over the place. Now what evidence do we have that that's any better than having mental hospitals? I think that an incremental, step-by-step change is a much wiser attitude than a revolutionary change. The Chinese speak always of learning by doing. I think in many instances this phrase has been overused but it's quite wise in changing things.

What we have done in many countries is that we have recommended that one creates not only a policy or plan, because that's possible, but much more importantly a body that can change the plan. It is the necessity to react to change which makes the plan work. Such bodies have been called coordinating committees or by some other such name. These are small groups composed of three to five people, representing the main sectors--social, welfare, education, defense, interior, health--which in fact are together and meet continuously, help to formulate the policy, and act also as a mechanism through which changes in the reality can be reflected back into policy. I think that is probably a thing that I will recommend as being the most effective way of going about it. It is through that committee that one can feed epidemiological data much better. Furthermore the committee can also--as it has done in some countries--ask for data that can be obtained and be willing to accept their imperfection for the time being while more important studies are going on. I recommend this structure as the most effective way of overcoming this difficulty.

Question: Dr. Sartorius, I have to echo Dr. Leighton's comments on your paper. It was exceptionally lucid and a great help. Underlying many of your statements was the question of value systems: the value system of the society, the value system of the planner, and the value system of the scientist or epidemiologist. It seems to be that very often, as people interested in epidemiology, we take a value system that is quite out of keeping with the society's or planner's value system. It seems to me that economies play a great part in this in that in certain economies there is an acceptance by the society of a certain human wastage which we as scientists and possibly as people interested in the care of the mentally ill have a difficult time accepting. I wonder if you might comment on this.

Dr. Sartorius: I think you're absolutely right. So much of what we are all having to face is value systems and their conflicts or incongruity or differences. Perhaps just a comment on human wastage: it really is a comment on medicine. The great advances of medicine that happened in the 19th century were thoroughly anti-mental, if there is such a word. There was all of a sudden a need to produce a working capacity in a person and most of the jobs that had to be done did not require a mind. This was a period of mindless production. If you were able to push a thing along another line, something was coming out and you could do this for 30 years. Extending life was unnecessary because you couldn't work after the age of 57 and making it "mindful" was unnecessary because it made a trouble-maker out of you. So the whole of the 19th century was marked with a drive for productivity at all costs, regardless of whether you think while you do it, whether you know what you are doing, or whether there is any benefit to you from it. And it was probably that attitude which has in fact allowed a fantastic accumulation of capital for reinvestment and made possible so many things that we today look at with pride and with interest. Gradually over the years, the emphasis on ensuring productivity changed, and there was a growing conviction that society should help survive even if they're not flawless, and that it is worthwhile to help children who are retarded or otherwise damaged. A little wealth brought with it the reawakening of a sense of humanity. And so over the last few years we see more of an influence of such ideas as "survival, but not at all costs." It must be survival with a sense--the sense that work isn't the end of everything, that there are other things in life. This attitudinal transformation is definitely giving us a great boost, if we want to think about psychiatry and mental health as being a discipline that can contribute to mental life, as well as handling mental disease which is the obstacle to production.

Question: Dr. Sartorius, one of the things that arises from some of what you've said is the notion that, in order for scientific knowledge to have impact on policy, there has to be an active interfacing of scientific knowledge and policy process, which I take it is the point of the committee that you have suggested. One wonders, though, who would compose such a committee and who would make the contributions to it. I think there's an even more fundamental problem which is that, not only is there little knowledge on the part of those who produce scientific knowledge on the nature of the political process, but there is even a disdain directed toward finding what that is. I wonder if that is something that should be addressed. I would suggest that it can't be addressed academically because academic formulations about the nature of the policy process are almost always incorrect. I wonder if it has to be addressed by formulating some sort of programs in which people with scientific knowledge are exposed on an active level to significant roles in the political process so that they begin to have some understanding of what that is all about and they begin to value the activity which in some countries is called lobbying. It seems to me that unless an informed scientific lobby is put together which is knowledgeable about political process and therefore can be effective in influencing it, there will be no influence. I would point out that there are people who are extremely successful in introducing certain kinds of knowledge into the political process. Large corporations and business interests tend to be very successful. The form of that problem is the same for them as it is for us, but they seem to be much more successful than we are.

Dr. Sartorius: Well, I have many comments I would like to make to this. One problem with us in the health field is that we do not, unfortunately, have a unique criterion of success. In most industry, if you make a profit you are doing well, and if you don't make a profit you are not doing well--it's very simple, in fact, and if you can get away without being brought to court while doing this, so much the better. But that's not so simple in health where, after all, there is no such simple criterion. Therefore it is difficult to get rid of some people because you cannot demonstrate that a service or a person is not worth employing. That has been cluttering up the system, not least in connection to psychiatry, because in previous years in many countries psychiatry was the final dustbin into which the less able professionals had drifted or been thrown. That of course doesn't apply to any living country or person.

The other point which I think is worth making is that a curious thing has happened in the mind of many of us and that is that people feel that in order to be public they must be politic. Let me explain this. A respectable professor or person of great knowledge is exceedingly reluctant to be ready at all times to speak to the press, television, and so forth without letting his profession go. Those that go into politics become politicians, and by that lose a bit of credibility in their own profession and somehow become more distant from what they are doing. I don't know where it comes from but there is a great reluctance for scientists as part of their normal profession to be public and to tell people what they are doing. Some are very good at it. In such instances what in fact happens is that there is a significant input of good things to the field. But most often people make a decision that, as long as they are a doctor, they are not going to speak to the press, and if they are going to speak to the press, they will not be a doctor. Then they go into politics, and once in politics, they forget the field in which they work. They are unable to bring the two together; they have sold one for the other. I'd be much happier to see in fact the public face of the profession in the field, rather than lobbying. I think that you achieve more. In lobbying we are not skillful and we don't have the time to do it. In public speaking with today's information explosion, the lobbying would happen via a different channel because it would be unavoidable.

Now, who has appointed committees? Very often the committees are appointed in many countries directly by the highest authority of the land: prime minister, president, or such. Had the American commission survived, it would be such an example. The American commission was appointed by the president to advise him about what he should do. In other countries there are permanent committees which are established by law. Sometimes they deal with the whole field of mental health; sometimes they deal with one aspect of it, and then later expand. Sometimes they start with a politically acute problem--drug dependence; it's a ministerial committee; ministers themselves sit on the committee and then gradually it expands to include other things as well. Sometimes it is easier to do this at the state, or in your instance, the provincial level than it is to do it at the federal level. The federal level of course is not as popular in some countries as it deserves to be. Small is beautiful in that as well.

Speaking of federal level, I recently visited China. They said, why don't you go to one of the provinces? Provinces? I mean, this is ridiculous. But I went to one of the provinces. Coming from a small country, I think of a province as about 3 000 people of whom 2 000 are drunk most of the time. And I came to the province of Sechuan to discover it's a province of 100 million people. Nevertheless the relationship between this enormous province and the central government was very much the same as the relationship of provinces in almost any other country. Again it was the idea that a provincial committee--in that instance a coordinating committee--worked very well while the national effort was encountering many more difficulties.

Question: Dr. Sartorius, there are many points that you raised that are thought-provoking. There is one I would like to get back to and it perhaps relates to the previous comment, and that has to do with language. I find that in many of the areas in which I have been involved in epidemiology, language has always been a problem. There is a difficulty in expressing the importance of epidemiological findings when you are a teacher to medical students who find them boring, and then to your other colleagues in the department who don't think they are important to teach because they are boring. Then language is important as you pointed out when you are a researcher, in being able to express yourself in a way that's publishable, makes an impact on your colleagues, and yet at the same time is in a language that can be picked up by the popular press and thus make the findings of some social use. And then, in the final point, if you do have a committee, or a group of people trying to get across findings of your own or somebody else's or those of a group so that they have some impact, you again have to know the language. I think we have to learn what this language is. It's no good to be a lobbyist or to be on a committee if we don't know how to express ourselves in ways that are catchy, thought-provoking, and influential. I don't think we know how to do that. I would be happy if we could address some of these issues at this conference and perhaps also consider them when we are thinking of training researchers in the future. The way you express yourself helps us to learn the language, but perhaps you could tell us what people are doing about this and give us some ideas we could take home with us.

Dr. Sartorius: I think that what you have said is quite true. Much of our difficulty is communicating with others or telling them what we know that might be helpful to them is what has been termed "verticality"--that is we are living within vertical pillars of our own disciplines. Then, of course, the measure that is usually recommended to change this is "horizontality"--that is, that we should speak horizontally. The problem of course is that vertical is just 90 degrees away from horizontal. In a discipline such as epidemiology or biology, you can also turn it this way and talk about elderly adults, children and so on, which are equally vertical, though they for a moment have the false cloak of being horizontal.

So my recipe is really diagonality rather than verticality or horizontality. It is an attempt to take the meat out of the various disciplines and the various concerns that presently exist and to try to react along the horizontal line by illustrating the same point in different disciplines and for different groups. It is convincing, if somebody asks you about what to do about children, to speak not only about what other people have done about children, or what epidemiology, biology, or other disciplines give you for children, but also about what has been done in other age groups. I think that we are obliged to get out of the pillars in which we are living and try to take information from other pillars, to reassemble knowledge for each new audience to which we are supposed to provide advice. That of course is very difficult because of the enormity of knowledge that we have and the difficulty in selecting what is most appealing and most immediately evocative.

Question: I'd like to refer back to the question of values which came up earlier. I got the suggestion that the scientist finds himself very often in a position of providing data for a value system over which he has very little control. The illustration given was the 19th century. I wonder if you believe we are still in such a transition. It occurred to me that there were at least some items about the 19th century which I find difficult to square with your proposition. You describe it, for example, as a mindless era, where I take it the health service had to deliver healthy broom-pushers to the system. On the other hand it was an era when, for the first time, the state became involved in public education. It looked as though they wanted people who could think a bit anyway. So I'm just wondering if firstly, your proposition is as strong as you believe it to be, and secondly, what you think our responsibility is now to take account of the value system in relation to the sort of data that we think we can produce.

Dr. Sartorius: The Chinese have such a lovely way of writing. They have two signs: they have a sign for learning, which is a little, squiggly body, a child, and there is a roof over his head which is broken open and the sun shines upon him--he is learning. Then there is another sign which is education or schooling, which shows the same sign of learning plus the signs of a prisoner. Two together--prison plus learning--makes education. In a way, much of the health education was asking people to behave in a way regardless of whether they believed in it, whether they understood it, or whether it was useful. Much of what we educated people to do about health was wrong--we know that today. I think that the main difference that we see today is that, instead of asking the health worker to educate, we are asking him to involve. Instead of telling people "do this," we are providing information which makes this person able to decide whether he wants to do this. So there is a significant change between coercing and mobilizing.

Now, of course the 19th century was a lovely time in many ways. Much of the greatest of human thinking happened in that century. But insofar as health was concerned, there was an enormous simplification and a very clear purpose that was put in front of it. I think that in that respect the 19th century had enormous successes, but it also in many ways was only a phase through which we now should have passed. Today many other concepts come to mind, which are contained to an extent in the 19th century thinkers. I think we are now able, as Napoleon said, to be giants because we stand on the shoulders of those great people. But we are a little different from them, I think, and not quite as they used to be. Some of them I still admire and I find many of the things that were said to be exceedingly true, but we have gone one step further. The 19th century has been compared with a slime mould. A slime mould is a little protozoon which lives in a forest and eats decayings leaves. Once it has eaten for a long enough time it eats up all the leaves, and it gets very worried: "What is this now; I have nothing to eat." So one of them all of a sudden changes and becomes different, and as much as half a million or a million of those protozoa start migrating towards him. They all gather around him and become a little cone, with half a million individuals. The cone, being much larger than any one single individual, tips over and rolls off to a new leaf. They all happily go to their new place and continue munching away at the leaves. Compare this to science in the 18th century. It seemed as if there was not enough any longer and there had to be a tremendous synthesis of all sides to bring it together to make it advance. The 19th century has done that. After that all the protozoa--all the sciences, disciplines, human pursuits--have enough food and are now happily feeding on leaves for a while without much connection between them. So I hope that we shall have some time before we have to reunite again in that sense.

THEME I. RESEARCH AND PRIORITIES FOR SERVICE: SOME GENERAL CONSIDERATIONS

EPIDEMIOLOGY, DIAGNOSIS, AND DISABILITY IN SETTING MENTAL HEALTH PRIORITIES

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ABSTRACT

Adequate epidemiological baseline data are necessary to answer basic questions in setting priorities such as how many individuals are in need of services and what are the needs of these people. Methods of investigation to answer these questions are outlined. To obtain accurate data, newer and more accurate diagnostic methods must be used and combined with methods for assessing outcome and level of disability.

Recently such combined data have started to become available. These also allow identification of those who are ill, who have common disorders with significant morbidity, and who are not receiving treatment.

The purpose of this paper is to outline:

1. *that adequate epidemiological data are essential in order to set priorities scientifically; and*
2. *that recent advances in diagnostic methods and disability assessment are necessary tools for epidemiological research.*

Epidemiology

Epidemiology has been defined as "the study of the distribution of disease in time and space and the factors that influence that distribution," and as "the distribution and determinants of disease frequency in man." It is apparent that this is much broader than the study of epidemics, and increasingly the techniques of epidemiology are being applied to the study of chronic diseases.

While the methods of epidemiology may be applied to a variety of problems, Wing and his associates (1970) have formulated the criteria for evaluation as a series of questions:

1. How many and what kinds of individuals are in contact with existing services?

2. What are the needs of these individuals and those of their relatives? That is, what are their symptoms and disabilities, both primary and secondary, and what burdens are placed upon relatives and the rest of the community?

3. Are the services presently provided meeting these needs?

4. How many others who are in touch with existing services also have needs, and are these needs different from those of patients who do see psychiatrists (use the services)?

5. What new services, or modifications to existing services, are likely to cater to unmet needs?

6. When innovations are introduced, do they in fact meet the needs?

While there can be little doubt about the relevance of these questions, it must be apparent that they cannot be answered with any degree of completeness with our present state of knowledge, despite their apparent simplicity. Basic methodological problems arise, including the following:

1. the definition of the population to be studied;

2. the definition of the disease(s) to be studied, including defining, with replicable criteria, what is a case (this includes diagnostic criteria);

3. the development of acceptable methods for finding and identifying cases;

4. the estimation of the degree of morbidity or disability. This obviously includes more than just the diagnosis;

5. the presentation of results in a replicable manner.

The types of indices which can be generated include the incidence, prevalence (point, period, and lifetime), and morbid risk or expectancy. Each of these may be made more specific (e.g. by age, sex, social class, marital status, race), and such efforts help to dispose of many biases which may otherwise be introduced into comparisons, and which may also assist in the delineation of risk factors, and the identification of high risk groups.

Estimation of Psychiatric Illness in the Population

A wide variety of approaches and methods have been used, unfortunately without provision for easy comparability in many cases and therefore often being somewhat limited in their usefulness.

1. Community surveys. The purpose of these projects is usually to describe and quantify the type and extent of mental morbidity in

the population. They may be descriptive or analytic. Well-known examples include Hollingshead and Redlich's (1958) study of social class and mental illness, the Stirling County Study (Leighton, Harding, et al., 1963), and the Midtown Manhattan (Srole, Langner, et al., 1962). There are many problems, such as selection of representative communities, sampling techniques, development of reliable instruments for use by non-professional interviewers, definitions of morbidity and "cut off" points, and problems of diagnosis.

2. Studies of particular populations. An example is a study of those born in a defined area at least 40-50 years ago, who may then be followed retrospectively. This type of study obviously requires that good records have been kept, that there are adequate demographic data, and that there is relatively low mobility. An outstanding example is Helgason's (1964) investigation of mentally ill Icelanders.

3. Studies using treatment data. A basic problem is how wide the net is to be in order to catch cases. Does it include outpatient data, or social agency data, or only hospitalization records? In this category one may also include the use of national data since many countries now keep national treatment or hospitalization data. These data have many problems such as unstandardized diagnostic practices, yet their sheer volume can eliminate variations introduced by local practices. In Canada, unfortunately, after having kept mental illness hospitalization data for almost 50 years, the current practices of Statistics Canada have deteriorated to the point of being almost valueless.

4. Case registers. There are case registers in Denmark (Dupont, Videbech, and Weeke, 1974), in the United States (the Maryland Case Register and the Monroe County Register), and in Britain (the Camberwell Register) which are of interest to researchers if not to policy-makers.

Goldberg and Huxley (1980) draw attention to another area of difficulty. Many persons have psychiatric symptoms but never get to psychiatric care. The study estimated that during a given year about 25% of the population have some degree of morbidity. In 14% this becomes conspicuous at the primary care level but only 1.7% actually receive specialist psychiatric care. What happens at the various "filter" points is obviously of importance. There is also considerable evidence that many cases of depression go untreated or poorly treated (Weissman, Myers, and Thompson, 1981), and the same authors in reviewing "offset" studies find that with more adequate psychiatric diagnosis and treatment, use of general medical services may be reduced by 26%.

Weissman and Klerman (1978) review changes which have taken place in the epidemiological approach to mental illness in recent years in the United

States. Major U.S. studies up to the late 1960s concentrated on "mental illness" and levels of symptoms and impairment. There has been far less attempt to deal specifically with different diagnostic entities.

Leighton (1982) in his recent book discusses the heterogeneity of the term "mental illness," as a barrier to effective care. It has also proved to be a barrier in epidemiology. Much more useful information is that about specific illnesses. For this, accurate, reliable diagnoses are necessary, preferably obtained using standardized instruments in the hands of non-professionals. This practice is not just necessary for diagnosis in epidemiology, of course, but is also a pressing need in clinical work and research, as both treatment and investigative techniques have become more sophisticated.

Diagnosis

The last decade has been highly significant for psychiatric diagnosis. Criteria have been developed for establishing diagnostic validity, and the problem of low inter-rater reliability in diagnosis has been reduced by the development of clearly defined diagnostic criteria.

Criteria for establishing diagnostic validity have been divided into phases (Feighner, 1981; Feighner, Robins, et al., 1972; Woodruff, Goodwin, and Guze, 1974):

1. clinical description of the disease with delineation from other disorders, and delimitation allowing specific exclusion of doubtful cases;

2. laboratory studies including psychological, chemical, radiological, and physiological tests shown to be reliable and reproducible;

3. family studies, examination of pedigrees, enhancing diagnostic validity, but also requiring combining with twin and adoptee data;

4. longitudinal, follow-up, natural history studies, both prospective and retrospective, to validate original diagnoses.

The absence of operational definitions of psychiatric disorders has proved a major obstacle to progress in reaching agreement among clinicians and researchers. During the early 1950s, the work at Washington University in St. Louis commenced leading to the development of reliable structured interview schedules. This work was integrated into an article on diagnostic criteria for use in psychiatric research (Feighner et al., 1972) which gave detailed operational criteria for a number of disorders. This was later expanded in collaboration with Spitzer and Endicott (as part of the NIMH Collaborative Research Program) and included colleagues from Harvard and Iowa, which led to the production Research Diagnostic Criteria (RDC) (Spitzer, Endicott, and Robins, 1975). Structured interviews--the various versions of the Schedule for Affective Disorders and Schizophrenia (SADS)--were also published (Spitzer and Endicott, 1978). Other interviews were also produced and published (e.g. Helzer, Robins, et al., 1981).

During this period a number of important reliability studies were conducted (Helzer, Clayton, et al., 1977; Helzer, Robins, et al., 1977; Spitzer, Endicott, and Robins, 1978). These showed that, using the standardized interviews and operational definitions, the level of reliability in psychiatric diagnosis was at least at the level of the best psychological tests, and vastly improved over results in earlier studies without the benefit of such instruments (Matarazzo, 1983).

The DSM III (APA, 1980) was perhaps the logical outcome of the vastly increased awareness of the importance of diagnosis and the possibility of making reliable diagnoses. It is unique in its use of five various axes. Axis I includes all psychiatric illnesses with the exception of personality disorders and specific developmental disorders of childhood, which constitute Axis II. Axis III is used to classify physical disorders and conditions which may coexist with Axis I and Axis II disorders.

Axis IV and V are new concepts introduced with DSM III and originally intended for use in research settings and to provide additional information of value in planning treatment or predicting outcome. Axis IV is used to judge the severity of psychosocial stressors on an 8-point rating scale; examples of each level of stress are given. Axis V is used to assess on a single scale of five points ranging from superior to poor the highest level of adaptive functioning in the preceding year in three major areas: social relations, occupational functioning, and use of leisure time.

The most recent development is the NIMH Diagnostic Interview Schedule (DIS) (Robins, Helzer, et al., 1981), a highly structured interview schedule, allowing either lay interviewers or clinicians to make psychiatric diagnoses according to DSM III criteria, Feighner criteria, and Research Diagnostic Criteria. The DIS, now in its third edition, does not include all of the DSM III diagnoses, but does have those likely to be of concern to researchers working with major psychiatric disorders. Each question is highly structured, and "probing" (eliciting further information) is also conducted using a structured format. The option of using lay interviewers and still achieving reliable diagnoses enhances its ability to be used in community surveys and probably represents a significant advance in this area. Its advantages in the selection of patients for all types of studies have been quickly recognized.

Diagnosis has been a matter of concern not only in the United States. In Britain, working over a period of 25 years, Wing and associates (Wing, 1983; Wing, Cooper, and Sartorius, 1974) developed the Present State Examination (PSE), now in its ninth edition, as a system for reliably describing clinical phenomena. There is also a computer program, CATEGO, for classification, and an Index of Definition defining threshold points. CATEGO defines classes, and Wing does not regard this as the equivalent of clinical diagnoses. However, the PSE has been used in two large-scale international studies, the US-UK diagnostic project (Cooper, Kendell, et al., 1972) and the International Pilot Study of Schizophrenia (WHO, 1973), and has now been translated into more than forty languages.

The requirements of accurate reliable diagnosis for epidemiological studies by methods which can be used by lay interviewers on large numbers of people are much closer to being met now than was the situation a decade ago.

Measurement of Outcome and Level of Disability

It must be apparent that, even if diagnosis is reliable, it alone is insufficient to give more than an impression of the type and volume of services required. To give a more complete picture it is necessary to have a reasonably accurate and meaningful assessment of outcome and the level and degree of disability which the sufferer is left with.

The importance is obvious. For example, what proportion of schizophrenics will need continuous hospitalization, or supported living and work situations in the community; how frequently and for how long will they require hospitalization, or how many will require income support of some kind?

Answering these questions requires the availability of measures of outcome, that is, instruments which at a point in time or over a period of time assess the level of disability.

There are other important aspects which may be regarded as course-of-illness variables. These include separating persons with non-recurrent disorders from those with recurrent disorders, and defining episode length and episode frequency. These issues have not been satisfactorily resolved. However, there has been marked improvement in the sophistication with which outcome is assessed at a point in time or over a period of time.

Early studies on the outcome of schizophrenia used vague and unspecified criteria such as "discharged" versus "hospitalized" or "improved" versus "unimproved" without any specification of the characteristics of these patients. Recent studies have become more sophisticated and use multidimensional outcome measures.

Strauss and Carpenter (1972) made a significant advance by assessing outcome on scales in four major areas of functioning: work, symptoms, social relations, and duration of non-hospitalization. Each of these was assessed separately, but could be combined for an overall outcome measure. Rather similar measures were used by Bland, Parker, and Orn (1976) and Bland and Orn (1978). The World Health Organization (WHO, 1979) used a larger series of slightly more sophisticated measures and combined them as an estimate of overall outcome. These studies are invaluable in differentiating separate areas of outcome functioning which, while linked and interrelated, tend to show considerable independence from each other (Strauss and Carpenter, 1974) and may have different predictors.

TABLE 1

Areas of Outcome Assessment (Recent Studies Using Multidimensional Outcome Measures)

Strauss and Carpenter (1972)	WHO (1979)	Bland et al. (1976, 1978)
1. Duration of non-hospitalization	1. Symptoms	1. Psychiatric condition
2. Social contacts	2. Length of episode of illness	2. Social adjustment
3. Employment	3. Percentage of time psychotic	3. Economic productivity
4. Absence of symptoms	4. Pattern of course	4. Loss of productive time
	5. Type of subsequent episode	
	6. Social impairment	
	7. Length of time out of hospital	

It should be pointed out that, although outcome assessment has improved in recent years with the development and application of multidimensional measures, particularly to schizophrenia and affective disorders, there have not been similar advances with certain other disorders, such as the neuroses and personality disorders.

Summary

Baseline rates for individual psychiatric disorders, including knowledge of their differential distribution in the population, are essential for rational calculation of costs and deployment of clinical and social resources.

Instruments previously used in epidemiological studies have concentrated on measuring overall levels of symptoms or impairment rather than specific clinical diagnoses. There is not necessarily a close relationship between symptom scales and diagnoses (Boyd, Weissman, et al., 1982; D'Arcy, 1982; Myers and Weissman, 1980). Recent advances in the validity and reliability of psychiatric diagnoses, with the development of standardized diagnostic interview schedules suitable for use by lay interviewers, have opened up new possibilities for epidemiological research, causing a shift from the epidemiology of "mental health" to the epidemiology of specific mental diseases.

Estimates of the community-wide incidence and prevalence of specific psychiatric disorders reliably diagnosed that include both treated and untreated cases have only recently started to become available.

Individual disorders have a wide range of outcomes from complete recovery to complete disability. The proportion of patients in these and intermediate categories varies with different disorders, but also in different geographical areas. The reasons are not completely understood and merit further research.

Studies of specific diseases indicate that they are not randomly distributed, but that factors such as age, sex, class, marital status, and other relevant characteristics differ in the frequency of different illnesses. Increasing knowledge in these areas can lead to the identification of risk factors, and better targeted clinical services.

It is well substantiated that many persons with psychiatric illnesses do not seek treatment. (It may be that only about 25% actually seek treatment for their mental disorder.) Identification of persons who are ill, who have a common disorder with significant morbidity and mortality, and who are not receiving treatment (but for whom effective treatment is available) should have a high public health priority. Some findings indicate that those with undiagnosed psychiatric disorders tend to have high utilization of other health services. Improved mental health services may lead to reductions of utilization of other health services by as much as 26%.

I have attempted to show that epidemiological data form a necessary basis for establishing service priorities, and that accurate diagnostic methods and techniques and assessment of both the proportion of patients and population likely to be disabled by particular psychiatric illnesses are a necessary part of epidemiological studies.

References

American Psychiatric Association. Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, D.C.: APA, 1980.

Bland, R.C., and Orn, H. 14-year outcome in early schizophrenia. Acta Psychiatrica Scandinavica, 1978, 58, 327-338.

Bland, R.C., Parker, J.H., and Orn, H. Prognosis in schizophrenia. A ten-year follow-up of first admissions. Archives of General Psychiatry, 1976, 33, 949-954.

Boyd, J.H., Weissman, M.M., Thompson, D., and Myers, J.K. Screening for depression in a community sample. Archives of General Psychiatry, 1982, 39, 1195-2000.

Cooper, J.E., Kendell, R.E., Gurland, B.J., Sharp, L., Copeland, J.R.M., and Simon, R.J. Psychiatric diagnosis in New York and London: A comparative study of mental hospital admissions. *Maudsley Monograph*, No. 20, London: Oxford University Press, 1972.

D'Arcy, C. Prevalence and correlates of nonpsychotic psychiatric symptoms in the general population. *Canadian Journal of Psychiatry*, 1982, *27*, 316-324.

Dupont, A., Videbech, T., and Weeke, A. A cumulative national psychiatric register: Its structure and application. *Acta Psychiatrica Scandinavica*, 1974, *50*, 161-173.

Feighner, J.P. Nosology of primary affective disorders and application to clinical research. *Acta Psychiatrica Scandinavica*, Suppl. 290, 1981, *63*, 29-41.

Feighner, J.P., Robins, E., Guze, J.B., Woodruff, R.A., and Winokur, G. Diagnostic criteria for use in psychiatric research. *Archives of General Psychiatry*, 1972, *26*, 56-73.

Goldberg, D.P., and Huxley, P. *Mental illness in the community: The pathway to psychiatric care*. London: Tavistock, 1980.

Helgason, T. Epidemiology of mental disorders in Iceland. *Acta Psychiatrica Scandinavica*, Suppl. 173, 1964.

Helzer, J.E., Clayton, P.J., Pambakian, R., Reich, T., Woodruff, R.A., and Reveley, M.A. Reliability of psychiatric diagnosis: II. *Archives of General Psychiatry*, 1977, *34*, 136-141.

Helzer, J.E., Robins, L.N., Croughan, J.L., and Welner, A. Renard diagnostic interview. *Archives of General Psychiatry*, 1981, *38*, 393-398.

Helzer, J.E., Robins, L.N., Taibleson, M., Woodruff, R.A., Reich, T., and Wish, E.D. Reliability of psychiatric diagnosis: I. A methodological review. *Archives of General Psychiatry*, 1977, *34*, 129-134.

Hollingshead, A.B., and Redlich, F.D. *Social class and mental illness*. New York: John Wiley & Sons, 1958.

Leighton, A.H. *Caring for mentally ill people*. London: Cambridge University Press, 1982.

Leighton, D.C., Harding, J.S., Macklin, D.B., et al. Psychiatric findings of the Stirling County Study. *American Journal of Psychiatry*, 1963, *119*, 1021-1026.

Matarazzo, J.D. The reliability of psychiatric and psychological diagnosis. *Clinical Psychology Review*. 1983, *3*, 103-145.

Myers, J.K., and Weissman, M.M. Use of a self-report symptom scale to detect depression in a community sample. American Journal of Psychiatry, 1980, 37, 1081-1084.

Robins, L.N., Helzer, J.E., Croughan, J., and Ratcliff, K.S. The National Institute of Mental Health Diagnostic Interview Schedule. Archives of General Psychiatry, 1981, 38, 381-389.

Spitzer, R.L., and Endicott, J. NIMH Clinical Research Branch Collaborative Program on the Psychobiology of Depression: Schedule for affective disorders and schizophrenia (3rd ed.). New York: New York State Psychiatric Institute Biometrics Research Division, 1978.

Spitzer, R.L., Endicott, J., and Robins, E. Research Diagnostic Criteria (RDC) for a selected group of functional disorders (2nd ed.). New York: New York State Psychiatric Institute Biometrics Research Division, 1975.

Spitzer, R.L., Endicott, J., and Robins, E. Research Diagnostic Criteria. Archives of General Psychiatry, 1978, 35, 773-782.

Srole, L., Langner, T.S., Michael, S.T., et al. Mental health in the Metropolis: The Midtown Manhattan Study. New York: McGraw-Hill, 1962.

Strauss, J.S., and Carpenter, W.T. The prediction of outcome in schizophrenia. I. Characteristics of outcome. Archives of General Psychiatry, 1972, 27, 739-746.

Strauss, J.S., and Carpenter, W.T. Characteristic symptoms and outcome in schizophrenia. Archives of General Psychiatry, 1974, 30, 429-434.

Weissman, M.M., and Klerman, G. Epidemiology of mental disorders: Emerging trends in the United States. Archives of General Psychiatry, 1978, 35, 705-712.

Weissman, M.M., Myers, J.K., and Thompson, D. Depression and its treatment in a U.S. urban community 1975-1976. Archives of General Psychiatry, 1981, 38, 417-421.

Wing, J.K. The use and misuse of the PSE. British Journal of Psychiatry, 1983, 143, 111-117.

Wing, J.K., Cooper, J.E., and Sartorius, N. The measurement and classification of psychiatric symptoms. London: Oxford University Press, 1974.

Wing, J.K., Wing, L., and Hailey, A. The use of case registers for evaluating and planning psychiatric services. In Psychiatric Case Registers, DHSS Statistical Report Series no. 8. London: HMSO, 1970.

Woodruff, R.A., Goodwin, D.W., and Guze, S.B. Psychiatric diagnosis. New York: Oxford University Press, 1974.

World Health Organization. The International Pilot Study of Schizophrenia. Geneva, WHO, 1973.

World Health Organization. Schizophrenia: An International Follow-up Study. New York: John Wiley, 1979.

BIOLOGICAL MARKERS IN PSYCHIATRIC AND NEUROLOGICAL DISEASE

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ABSTRACT

In this brief overview the utility of biological markers in subnormality and neurological disorders is outlined. With respect to the psychiatric disorders, the pros and cons of dopamine and/or its metabolites and other monoamines being markers in schizophrenia is discussed in more detail. Data are presented that indicate that some of the trace amines, their acidic metabolites and/or related enzymes (monoamine oxidase) are involved in schizophrenia, depression, agoraphobia, and aggression. It will be seen that there are significant reductions (or increases) in the platelet activity of monoamine oxidase and in plasma trace acids.

Many psychiatric and neurological disorders are, at least in part, inherited: this fact suggests that a disordered or abnormal biochemistry is present. If this biochemical abnormality can be identified, then the understanding of the disorder has increased and concomitant strategies for treatment and therapy can be (and are) developed. A search for biological markers in schizophrenia, depression, aggression, suicide, hyperkinesis, anorexia nervosa, migraine, Parkinsonism, Huntington's chorea, etc. is currently underway. It is obviously hoped that such markers, state or trait, will permit diagnosis and early intervention.

Mental Retardation

Much success has been achieved in several cases of subnormality. In phenylketonuria, for example, the finding of raised levels of phenylpyruvic acid in urine led to the discovery that hepatic phenylalanine hydroxylase was not functional with consequent imbalances in aromatic amino acid metabolism and homeostasis; dietary manipulation in early childhood permits a more normal physiological/psychological development. Similarly markers have been located in galactosaemia (absence of the enzyme galactose-1-phosphouridyl transferase), the aminoacidurias (homocystinuria, tyrosinaemia, Hartnup's disease, maple syrup disease, etc.), the lipidoses (Tay-Sach's disease, Nieman-Picks disease, Gauchers disease, etc.) and in gout and xanthinuria where disorders in purine and pyrimidine metabolism are found.

Neurological Disorders

Probably the best example in this area has been the finding of reduced levels of dopamine (DA) (a neurotransmitter, highly localised in the basal ganglia) and some of its metabolites in the brain and body fluids of Parkinson patients. Whilst other neurochemical abnormalities have also been noted in persons exhibiting this condition, the reduced DA levels pointed very clearly to a replacement chemotherapy; by feeding L-Dopa along with a peripheral L-aromatic amino acid decarboxylase inhibitor, cerebral DA levels can be increased with a consequent improvement in the condition at least for several years. As a result of post-mortem analyses it is now known that brain levels of DA, -aminobutyric acid and acetylcholyne (all neurotransmitters) are reduced in both Huntington's Chorea and senile and presenile dementia. Such findings indicate that perhaps suitable replacement chemotherapies will be developed in these conditions as well. Much work is, in addition, currently proceeding in a search for 'markers' of Alzheimer's disease.

Schizophrenia

In this, the most devastating of psychiatric disorders, there are now many reasons to be optimistic. Several 'markers' appear to be emerging. Following the introduction of highly sophisticated new technologies such as CT scanning (1), blood flow measurements utilizing radioactive xenon, nuclear magnetic resonance (2) and positron emission tomography (PET) (3), it now seems possible to claim that morphological abnormalities exist in the schizophrenic brain. By using suitably labelled substances (ie. those that disintegrate to yield positrons) it is expected that it will soon be possible to visualize those areas of the brain that are involved in energy metabolism, neurotransmitter uptake and release, etc. and to relate them to the various psychiatric and neurological disorders. In addition, it is expected that PET will be able to reveal which neurotransmitter, in which part of the brain, is involved in sleep, cognition, reward, memory, temperature regulation, emotion, etc. (see for example refs. 4,5).

Using alternative strategies based on pharmacological manipulation in experimental animals and neurotransmitter receptor binding in post-mortem human brain, it has already been claimed that dopamine is involved in schizophrenia (see ref. 6). It has been shown that the clinically efficacious antipsychotic drugs are dopamine antagonists and that a good correlation exists between receptor binding and clinical efficacy (7); other drugs (amphetamine, L-dopa for example) are claimed to exhibit the expected effects (i.e. make them worse) when ingested by schizophrenic patients; on the basis of these results, therefore, it is said that schizophrenics possess overactive dopaminergic systems or dopaminergic supersensitivity. At this time, no incontrovertible evidence exists to support this theory, however, and in fact, there are several good reasons for thinking that it is simplistic. For example, 1. there is a considerable time lag (several weeks) between ingestion of antipsychotic drugs and clinical improvement; 2. the receptor binding increases could be caused by drugs; 3. some predictable antipsychotic substances such as a-methyl p-tyrosine (a DA synthesis blocker) is not an effective antipsychotic agent; 4. several other neurotransmitters are also affected in a manner analogous to DA by antipsychotic drugs and in the receptor binding studies, and 5. reduced brain DA levels, as they exist in Parkinsonism for example, are not a protection against schizophrenia. Despite those objections, however, it does seem likely that the expected putative neurotransmitters along with some other aminergic neurotransmitters and neuromodulators will be involved in schizophrenia. Such hypotheses possess great heuristic merit and have already led to substantial increases in our knowledge of neurotransmitter distribution and function. In particular, for example, Hornykiewicz (8) argues that a better case can be made for the involvement of noradrenaline in schizophrenia while others claim that 5-hydroxytryptamine, some of the neuropeptides (cholecystokinin, somatostatin, neurotensin, substance P and B-endorphin in particular) and the prostaglandins have a role to play. In blood plasma, it has been claimed that the serine/cysteine ratio is altered along with those of some carbohydrate metabolites while in platelets there seems little doubt that monoamine oxidase (MAO) is reduced in chronic schizophrenia, although the precise cause of this still evades us (9).

Depression

As in schizophrenia research, studies of depression yield numerous claims of altered neurotransmitter metabolism ranging from decreased levels of 5-hydrozyindoleacetic acid in cerebrospinal fluid (csf) to decreases in noradrenaline (NA) and 3-methoxy- 4-hydroxyphenylglycol in urine in depressed states and increases in mania. It has been shown that the dexamethasone suppression test is an indicator of depression and that there are changes in other neuroendocrine substances (see ref. 10).

Trace Amines

In Saskatchewan we have chosen to focus on a different group of amines - the trace amines - so-called because of their tiny tissue concentrations (see the following book and review for more detailed information 11,12). These amines (phenylethylamine (PE), tryptamine (1), *para*-tyramine (pTA), *meta*-tyramine (mTA), the octopamines, etc.) are considered important for the following because 1. they are heterogeneously distributed both in the neurone and across the brain; 2. their turnover is enormously fast; in fact, in unit time, as much PE is synthesised as DA and much more than noradrenaline; 3. they are the best substrates for monoamine oxidase (MAO); 4. they are structurally and metabolically related to the catecholamines and 5-hydroxytryptamine; 5. they are synthesised from the essential amino acids phenylalanine and tryptophan as well as from tyrosine; 6. a reciprocal relationship exists between striatal and mesolimbic pTA and mTA and DA in the presence of antipsychotic, neuroleptic, and stimulant drugs, dopamine agonists and antagonists, dopamine precursors and metabolic inhibitors and stress; 7. some of them are concentrated and released by active processes both *in vitro* and *in vivo*; 8. after iontophoresis they behave as inhibitory neurotransmitters, when they are co-iontophoresed in tiny amounts with DA, NA and 5HT, they vastly potentiate the depressant actions of these latter substances; 9. receptors have been demonstrated for T and perhaps for PE; 10. they are behaviourally active mimicking the actions of amphetamine as well as being involved in those components of behaviour mediated by DA, NA and 5HT; 11. they seem to be involved in the synaptic process either directly as neurotransmitters or indirectly as neuromodilators of the other putative monoamines and perhaps some neuropeptides and other transmitters; 12. an hypothesis outlining their synaptic role in homeostatic mechanisms and potential involvement in psychiatric and neurological disorders has been advanced.

In clinical terms the trace amines have been implicated in depression where the reduced urinary level of phenylacetic acid (PAA) is suggested to be a diagnostic indicator (13), and in addition, Sandler et al. (14) have suggested an abnormal conjugation of pTA; in migraine where they are claimed to be dietary precipitators it has been suggested that there is an abnormal level of phenolsulphotransferase (in platelets) and that this causes an abnormal conjugation of pTA (15). PE has been proposed to be 'nature's' amphetamine and thus to cause schizophrenia in much the same way as chronic amphetamine abuse leads to a condition resembling paranoid schizophrenia (16,17). PAA is claimed to be increased in schizophrenic csf. In aggressive psychopaths, Sandler et al. (18) have claimed that the plasma levels of PAA are increased.

As is apparent from Table 1, we have shown that MAO, as assessed using three different trace amine substrates, is decreased in chronic schizophrenics, manic depressives and in violent prisoners; it is increased in agoraphobics exhibiting panic attacks. In Table 2 it can be seen that unconjugated PAA and meta-hydroxyphenylacetic acid (mHPAA) are significantly reduced from control levels (both institutional and community) in chronic schizophrenics obtained from two different hospitals. In agoraphobic patients with panic attack and in depression, it is clear from Table 3 that unconjugated PAA is significantly reduced in depressives and that there is a tendency for all the unconjugated trace acids to be reduced in agoraphobia. In aggressive persons (i.e. those incarcerated for crimes in which injury or death to another person occurred), Table 4 shows that unconjugated *para*-hydroxyphenylacetic acid (pHPAA) and conjugated PAA are significantly reduced.

Conclusion

In this very brief overview of biological indicators of certain psychiatric disorders, it can be seen that there is no substance that can yet be indisputably claimed to be a marker of any particular condition. What is becoming clear, however, is that the putative monoamine neurotransmitters and the neuromodulatory biogenic (i.e. trace) amines or their respective metabolites or associated enzymes appear to be implicated. These findings, coupled with neuroendocrine changes and indicated brain morphological changes, hold out great promise that markers will be found. Armed with suitable markers, it will not be long before researchers accumulate more detailed knowledge, leading to great increases in understanding treatment and prevention.

References

1. Weinberger, D.R., Wagner, R.L., and Wyatt, R.J. Neuropathological Studies of Schizophrenia: A Selective Review. Schiz. Bull., 1983, 9, 193-212.

2. Brownell, G.L. Budinger, T.F., Lanterbur P.C., and McGeer, P.L. Positron Tomography and Nuclear Magnetic Resonance Imaging. Science, 1982, 215, 619-626.

3. Ter-Pogossian, M.M., Raichle, M.E., and Sobel, B.E. Positron Emission Tomography. Scientific Amer., 1980, 171-181.

4. Wagner, H.N., Burns, H.D., Dannals, R.F., Wong, D.F., Langstrom, B., Duelfer, T., Frost, J.J., Ravert, H.T., Links, J.M., Rosenbloom, S.B., Lukas, S.E., Kramer, A.V., and Kuhar, M.J. Imaging Dopamine Receptors in the Human Brain by Positron Tomography. Science, 1983, 221, 1264-1266.

5. Garnett, E.S., Finau, G., and Nahmias, C. Dopamine Visualised in the Basal Ganglia of Living Man. Nature, 1983, 305, 137-138.

6. Haracz, J.L. The Dompamine Hypotheses: An Overview of Studies with Szhizophrenic Patients. Schiz. Bull., 1982, 8, 438-469.

7. Seeman, P., Lee, T., Chau-Wong, M., and Wong, K. Antipsychotic Drug Doses and Neuroleptic/Dopamine Receptors. Nature, 1976, 261, 717-719.

8. Hornykiewicz, O. Brain Catecholamines in Schizophrenia - A Good Case for Noradrenaline. Nature, 1982, 299, 484-486.

9. Wyatt, R.J., Potkin, S.G., Bridge, T.P., Phelps, B.N., and Wise, C.D. Monoamine Oxidase in Schizophrenia: An Overview. Schizophrenia, 1980, 6, 199-207.

10. Feinberg, M. and Carroll, B.J. Biological Markers for Endogenous Depression in Series and Parallel. Biol. Psychiat., 1984, 19, 3-11.

11. Boulton, A.A., Baker, G.B., Dewhurst, W.G., and Sandler, M. (eds.) Neurobiology of the Trace Amines: Analytical, Physiological, Pharmacological, Behavioural and Clinical Aspects. New Jersey: Humana Press Inc., 1984.

12. Boulton, A.A. and Juorio, A.V. Brain Trace Amines, in A. Lajtha, ed., Handbook of Neurochemistry 1, New York: Plenum Press, 1982, 189-222.

13. Sabelli, H.C., Fawcett, J., Gusovsky, F., Javaid, J., Edwards, J., and Jeffries, H. Urinary Phenyl Acetate: A Diagnostic Test for Depression? *Science*, 1983, *220*, 1187-1188.

14. Sandler, M., Bonham-Carter, S.M., and Walker, P.L. Tyramine and Depressive Illness, A.A. Boulton, G.B. Baker, W.G. Dewhurst, and M. Sandler, *Neurobiology of the Trace Amines*, New Jersey: Humana Press Inc., 1984, pp. 487-498.

15. Littlewood, J., Glover, V., Sandler, M., Petty, R. Peatfield, R., and Rose, F.C. Platelet Phenolsulphotransferase Deficiency in Dietary Migraine. *Lancet*, 1982, *1*, 983-985.

16. Potkin, S.G., Karoum, F., Chuang, L.-W., Cannon-Spoor, H.E., Phillips, I., and Wyatt, J.D., Phenylethylamine in Paranoid Chronic Schizophrenia. *Science*, 1979, *206*, 470-471.

17. Sandler, M., Ruthven, C.R.J., Goodwin, B.L., King, G.S., Pettit, B.R., and Reynolds, G.P., Raised Cerebrospinal Fluid Phenylacetic Acid Concentration: Preliminary Support for the Phenylethylamine Hypothesis of Schizophrenia. *Comm. Psychopharmacol.*, 1978, *2*, 199-202.

18. Sandler, M., Ruthven, C.R.J., Goodwin, B.L., Field, H., and Matthews, R., Phenylethylamine Overproduction in Aggressive Psychopaths. *Lancet*, 1978, *2*, 1269-1270.

19. Boulton, A.A., Some Aspects of Basic Psychopharmacology: The Trace Amines. *Prog. Neuro-Psychopharmacol. Biol. Psychiat.*, 1982, *6*, 563-570.

20. Yu, P.h., Bowen, R.C., Davis, B.A., and Boulton, A.A. Platelet MAO Activity and Trace Acid Levels in Plasma of Agoraphobic Patients. *Acta Psychiat. Scand.*, 1983, *67*, 188-194.

21. Yu, P.h., Bowen, R.C., Carlson, K., O'Sullivan, K., and Boulton, A.A. Comparison of some Biochemical Properties of Platelet MAO in Mentally Disordered and Healthy Individuals. *Psychiat. Res.*, 1982, *6*, 107-121.

22. Davis, B.A., Yu, P.H., Carlson, K., O'Sullivan, K., and Boulton, A.A. Plasma Levels of Phenylacetic Acid *meta*- and *para*-Hydroxyphenylacetic Acid and Platelet MAO Activity in Schizophrenic and Other Patients. *Psychiat. Res.*, 1982, *6*, 97-105.

23. Boulton, A.A., Davis, B.A., Yu, P.H., Wormith, J.S., and Addington, D. Trace Acid Levels in Plasma and MAO Activity in the Platelets of Violent Offenders. *Psychiat. Res.*, 1983, *8*, 19-23.

TABLE 1

Platelet Monoamine Oxidase Activity in Different Psychiatric Disorders

	MAO Activity		
	pTA	PE	T
Controls (laboratory personnel) (n=30)	2.51	9.07	0.83
Controls (from the community) (n=64)	2.59	9.17	0.90
Controls (institutional, Hospital A) (n=24)	3.17	10.54	0.99
Chronic Schizophrenics (Hospital A) (n=24)	1.76*	7.38*	0.45*
Chronic Schizophrenics (Hospital B) (n=19)	1.68*	6.24*	--
Manic Depressives (Hospital B) (n=19)	2.07	5.78*	--
Agoraphobics with panic attacks (n=29)	3.57	13.58	1.15
Violent prisoners (Institution C) (n=35)	2.20	8.41	0.51
Violent prisoners (Institution D) (n=16)	2.14*	7.46*	0.47*

Results expressed as nmol/mg/h.
* significantly decreased from controls p 0.05 to 0.001.
tendency to decrease but significance p 0.05.
significantly increased from controls p 0.05 to 0.001.
Data taken from refs. 19-21 and Boulton et al., unpublished.

TABLE 2

Plasma Unconjugated Trace Acid Levels in Schizophrenia

	PAA	mHPA	pHPA
Community Controls (n=64)	133	19.0	84
Institutional Controls (Hospital A) (n=24)	168	14.8	69
Schizophrenics (Hospital A) (n=24)	175	7.8	52
Schizophrenics (Hospital B) (n=18)	115	7.5	63

Results expressed as ng/ml.
Values significantly different from institutional controls.
p 0.05
p 0.01
p 0.001
Data taken from ref. 22.

TABLE 3

Plasma Unconjugated Trace Acid Levels in Agoraphobia and Depression

	PAA	mHPA	pHPA
Controls (community) (n=64)	133	19.2	84
Controls (laboratory personnel) (n=14)	155	23.2	69
Depressed patients (n=17)	82	14.7	54
Agoraphobic patients (n=29)	107	11.9	63

Results expressed as ng/ml.
* Values significantly reduced from controls p 0.05.
Tendency to decrease but significance p 0.05.
Data taken from ref. 20.

TABLE 4

Plasma Conjugated and Unconjugated Trace Acid Levels in Violent and Non-violent Prisoners

		Violent (n=35)	Non-violent (n=38)
PAA	Unconj.	136	127
	Conj.	207	361
mHPA	Unconj.	9.6	9.5
	Conj.	1.3	1.1
pHPA	Unconj.	64.5	100
	Conj.	9.8	13.0

Results expressed as ng/ml.
Values significantly different from non-violent p 0.05; p 0.02.
Data taken from ref. 23.

THE IDENTIFICATION AND PREVALENCE OF MENTAL DISORDERS IN ALCOHOL AND DRUG PATIENTS

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ABSTRACT

Recent studies using explicit diagnostic criteria and standardized psychiatric interviews indicate that neither the presence nor the absence of mental illness can reliably be inferred from the existence of an alcohol or drug problem in an individual. The difficulties of diagnosing mental disorders in patients with substance abuse disorders is described. Identification of mental health problems is a pre-requisite for effective and efficient treatment. An Addiction Research Foundation prevalence study is examining the utility of the General Health Questionnaire and the NIMH Diagnostic Interview Schedule in screening for mental disorders in patients with alcohol or drug problems.

Although it is generally accepted that some proportion of individuals seeking help for alcohol and drug problems will also meet operational criteria for other kinds of mental disorder, specifying that proportion quantitatively has posed something of a problem. Before the deployment of precise, operationally defined criteria in certain recent studies, estimates ranged from 0% (from those who took to heart the idea that mental illness is a myth) to 100% (for example, Milo Tyndel's 1974 psychiatric study of 1,000 alcoholic patients at the Addiction Research Foundation).

Those studies of psychopathology in alcohol and drug populations which used dimensional symptom or personality scales were difficult to interpret and gave widely varying results. In a 1979 study, Keeler, Taylor, and Miller reported that the prevalence of depression among alcoholics ranged between 9% and 43% depending on whether measurement was by clinical diagnosis or any one of three standard rating scales of depression. More recently, Hesselbrock, Hesselbrock, Tennen, et al. (1983) compared the prevalence of depression in a sample of 250 inpatient alcoholics using the NIMH Diagnostic Interview Schedule and DSM-III criteria, the Beck Depression Inventory, and the MMPI depression scale. Once again the clinical interview showed the lowest rate (27%) compared to 54% on the Beck and 62% on the MMPI. Blatt, Quinlan, Chevron, et al. (1982) found no relationships between the Feighner criteria and the MMPI, BDI, or Zung Self-Rating Depression Scale in an adult psychiatric population. They concluded that the subjective experiences (measured by the MMPI and the BDI) and the objective signs of depression (measured by the Feigner criteria) "are two separate and relatively independent phenomena."

The use of explicit diagnostic criteria and structured interviews among alcoholics in various treatment settings and in the community (Fowler, Liskow, Tanna, et al., 1977; Freeman, Formo, Alampur, et al., 1979; Halikas, Herzog, Mirassou, et al., 1981; Powell, Penick, Othmer, et al., 1982; Robins, Gentry, Munoz, et al., 1977; Rounsaville, Weissman, Kleber, et al., 1982; Rund, Summers, & Levin, 1981; Weissman, Myers, and Harding, 1980) makes it clear that estimates suggesting that mental disorder is present in all or none of this group are both erroneous. Although interesting in themselves for several reasons, these findings indicate clearly that neither the presence nor the absence of mental illness can reliably be inferred from the existence of an alcohol or drug problem. Some individuals with such problems will also be mentally ill, and others will not.

The overlap of substance abuse disorders and other discrete mental disorders raises a serious problem in the delivery of treatment services to such a population. Although the coexistence of two (or more) types of problems in an individual patient does not necessarily say anything about the etiology of either, effective and efficient treatment clearly requires, at the very least, that the existence of a mental health problem be identified, and that the question of whether, and with what priority, to approach it be considered. The work that we shall present concerns the identification of other mental disorders in patients seeking help for alcohol and drug problems. As we shall see, this is not always an easy task.

The entire spectrum of psychiatric disorders may be seen in patients with drug or alcohol problems. These disorders may play a causative role in the substance abuse, may be a result of constant chronic intoxication, may result from the withdrawal of alcohol or drugs, or may occur independent of the substance abuse disorder. Therefore, in examining psychiatric factors in substance abuse treatment, it is essential to look not only at the specific symptoms which are occurring, but also at the temporal relationship of these symptoms to the alcohol or drug problems.

Some authors (Schuckit, 1979) differentiate between primary (or uncomplicated) alcoholism, a term which designates serious alcohol problems occurring in an individual demonstrating no pre-existing major psychiatric disorder, and secondary (or complicated) alcoholism, which is an alcoholic picture beginning after another major psychiatric disorder has developed or during an extended period of abstinence. Studies have shown that the most common treatable primary psychiatric disorder in secondary alcoholics is affective disorder. Major depression or bipolar disorders carry a high risk of suicide and social disruption which may require psychiatric treatment. Such treatment may include the proper prescription of antidepressant medication or lithium if advisable. This can be done concurrently with treatment for alcohol-related problems.

The secondary alcoholic patient with a primary diagnosis of antisocial personality disorder is also seen frequently in treatment for severe alcohol-related problems. Schuckit and Winokur (1979) consider that this patient carries a worse prognosis than the primary alcoholic. Schuckit notes the high rates of concomitant drug abuse and the elevated risks of commission of serious crimes in these individuals.

Other treatable psychiatric disorders, according to recent studies, are not frequently seen in samples of alcoholics. In the small percentage of patients with schizophrenic disorders, the control of hallucinations, delusions, and social withdrawal may require adequate doses of antipsychotic medications.

Alcohol can mimic almost any psychiatric symptom. For example, even after screening out the secondary alcoholics, a level of confusion remains regarding depressive symptoms. Alcohol in high doses causes a picture of sadness both in alcoholics and others, with a level of depression that can result in spur-of-the-moment suicides. However, unlike primary affective disorder, alcohol-induced sadness will disappear within days to weeks of cessation of drinking. Not only do alcoholics exhibit sadness, but the diagnostic confusion is further complicated by the increased level of drinking which is seen in many manic and depressive episodes. It is probably not possible to diagnose primary affective disorder in the presence of heavy drinking unless a careful history of prior affective episodes unrelated to alcoholism is obtained. Sadness, which disappears with abstinence, should be recognized as a frequent presenting symptom for alcoholics.

For the most part, no systematic effort is made to evaluate the possibility of major or minor mental disorders in patients who present themselves for treatment of alcohol or drug problems at non-psychiatric facilities. This is unfortunate in the light of findings such as those of Ottenberg (1980) which show that about 20% of all admissions to a drug and alcohol treatment facility require that the psychiatry service be active in following and maintaining control of the patient. Among other factors that determine whether drug and alcohol facilities can accept and treat individuals with psychiatric disorders must be included the intensity and nature of the patient's symptoms and the proportion of psychiatrically impaired or symptomatic persons within the treatment population.

Probably the modal method of procedure is for various treatment personnel to "flag" any suspicious individuals for referral to a consulting psychiatrist or clinical psychologist. What this method tends to do, however, is to identify disturbing, not disturbed, behaviour; and the correlation between the two is not of a high order. For example, Maguire, Julier, Hawton, et al. (1974) reported that when a group of 170 medical inpatients were screened for psychiatric problems and when those who were positively screened were given a psychiatric interview, 28 patients were thought to have been sufficiently ill to require psychiatric referral; yet only 16 of the 28 had been referred. The authors commented that "referral appeared to have been very strongly determined by how far their behaviour had obtruded or created problems for the medical staff." All those in the non-referral group appeared to have cooperated in treatment, been quiet in their behaviour, and were able to mask their psychiatric difficulties." Dr. Sartorius, in a talk last week at the Clarke Institute, illustrated a similar point regarding the role of psychiatrists as "nuisance eliminators". He described a man in Uganda who had had 15 episodes of manic-depressive illness. He was treated for only one of them--his manic episode--because when he was depressed he just sat in a corner crying, and bothering no one.

In other words, such a workmanlike approach as "flagging", although not devoid of a certain rough-hewn merit, is unacceptable because it is likely to make both false positive and false negative diagnoses. Moreover, such a method is highly sensitive to the varying abilities of individual staff members to detect psychiatric illnesses. Clearly what is needed is the deployment of a uniform and accurate method of assessing the current mental status of all applicants for alcohol and drug treatment. Among the characteristics of such a method must be that it is rapid, accurate, inexpensive, and applicable to all admissions across the board. It hardly needs to be said, of course, that routine psychiatric interviewing does not meet these criteria.

At the Clinical Institute of the Addiction Research Foundation, the Department of Psychiatry has been evaluating one possible approach to screening of treatment applicants for mental disorder. The development of psychiatric screening questionnaires linked to standardized psychiatric interviews has made it possible to make estimates of psychiatric prevalence in drug and alcohol settings that are independent of the varying skills of therapists in making such assessments. Attention has focused on Goldberg's General Health Questionnaire (1972), a simple, self-administered screening instrument. Although this instrument has been widely used in community settings, such as among primary care or medical outpatients, and has usually exhibited satisfactory levels of sensitivity and specificity when validated against psychiatric interview, it has not yet, to our knowledge, been validated specifically for use with drug and alcohol treatment populations. Preliminary experience with the instrument in 200 patients at the Clinical Institute's Assessment Unit indicated that, although GHQ scores in general tended to be higher than in other populations, judicious raising of the threshold scores permitted helpful distinctions to be made regarding mental disorders. The GHQ scores also appeared to be highly correlated with independent measures of anxiety and depression. In a word, the potential use of the GHQ as a screening device in this population seemed reasonable.

It appeared, however, that a validation of the GHQ in this particular population was required before such a screening program could be undertaken with confidence. Since sensitivity (the proportion of cases correctly identified by a test) and specificity (the proportion of normal persons correctly identified at the same time) are dependent upon the ratio of high to low GHQ scores in the sample, the GHQ needs to be calibrated on a representative sample of the population for which it is to be used. The cut-off point must also be adjusted because values which were adequate to screen cases in general practice cannot automatically be used in alcohol and drug patient samples. The GHQ, although useful in screening for psychiatric disorder in general practice patients, may prove to be less so among the special group of alcohol and drug patients. There may be features of prolonged exposure to noxious substances which would unduly magnify or mitigate salient symptomatology or phenomenology and result in invalid findings.

We have embarked, therefore, upon a major study of the Clinical Institute admission population in which the GHQ will be validated against the recently developed NIMH Diagnostic Interview Schedule, a standardized, fully structured interview for gathering basic clinical data which a computer program can translate into certain DSM-III diagnoses. The DIS was developed for use in a series of epidemiological surveys in five U.S. centres. Unlike the clinical Present State Examination (PSE) of Wing in England, and the Schedule for Affective Disorders and Schizophrenia (SADS) developed by Spitzer and Endicott in the U.S., the DIS was specifically designed for use by lay interviewers. Unlike earlier epidemiological survey instruments used in the Midtown Manhattan studies, the DIS results in specific diagnoses rather than simply assessing overall mental health.

The presence of criterion psychiatric symptoms is ascertained by asking respondents whether they have experienced each of the symptoms in their lifetime, and whether that symptom met at least one of three criteria for severity: taking medication for the symptom more than once, talking to a physician or other professional about the symptom, and having the symptom significantly interfere with one's life. In addition, the interview ascertains whether the symptom was explained entirely by physical illness or injury, or as a complication of the use of medication, illicit drugs, or alcohol. This is particularly important in our study because of the difficulties of distinguishing the symptoms of a clinical depressive illness from the pharmacological effects of ethanol and opiate use and withdrawal alluded to earlier.

The DIS, unlike depression rating scales and earlier diagnostic instruments, specifically attempts such a differentiation by eliminating symptoms attributed by the patient to alcohol or drug use. The standard probe flow chart used to determine whether reported symptoms meet criteria for severity includes three probes related to this issue: "Was (symptom) ever the result of using medication, drugs or alcohol?" "Was (symptom) always the result of using medication, drugs or alcohol?" "When was the last time you had (symptom) when it wasn't due to medication, drugs, or alcohol?" Although these probes will not eliminate those symptoms which the patient does not realize are attributable to drugs or alcohol, they obviate some of the difficulties of diagnosis that this study was designed to eliminate.

Symptoms are combined by computer according to the criteria for each of three diagnostic systems: DSM-III, Feighner, and Research Diagnostic Criteria. The DSM-III diagnoses can be made both with and without diagnostic hierarchies. The importance of the use of the computer is that it prevents any potential biases of the interviewer from influencing the diagnosis. The structured interview and computerization of diagnostic algorithms prevents extraneous data from being included in the diagnosis. It is our view that this is a more stringent test of the validity of the GHQ than would be its matching against a clinical psychiatric interview. Beyond this, it is less costly, and has potentially important service implications, as will be seen below.

Should the GHQ prove useful in this population, we would recommend its routine deployment in alcohol and drug treatment programs as a first step in identifying (and potentially treating) instances of mental disorder. According to Caplan's (1964) schema, this activity could be considered either secondary or tertiary prevention, depending upon the history of the mental disorder in the individual patient. We would either be detecting disorders at an early stage and moving to prevent them from developing fully, or we would be aiming at limiting the defect arising from the illness to the extent that was possible, and at rehabilitation, including prophylaxis of recurrence. Primary prevention, which aims at eliminating the etiological factors (assuring that an identifiable case does not appear among those at risk) is of course beyond the capability of the specific mechanism we are describing.

Since the GHQ or any similar screening device such as The Hopkins Symptom Checklist will not prove to be totally accurate, we therefore expect to set them within a chain of assessment procedures which might eventually lead to psychiatric treatment. Following the identification of probable positives with the GHQ, the next step might well be the use of the DIS-DSM-III combination. Ultimately, cases positively diagnosed at this second level would probably be seen by an experienced clinical psychiatrist, not only to confirm or reject the diagnosis but to offer an informed opinion regarding the desirability and possible modality of treatment. It is supposed that the two previous levels of screening will greatly ease the work of the psychiatrist and assure that his or her services are not unduly oversubscribed.

Lastly, it might be well to mention that the implementation of such a system of assessing individual patients presupposes a distinction between the processes of assessment and treatment. Assessment must occur before treatment, and treatment must be contingent upon the results of assessment. This is not the case in many, or perhaps most, of the treatment programs now operating in this field. It is hoped that the development and careful validation of assessment instruments, as is described herein, will contribute to the cogency of making such a distinction.

References

Blatt, S.J., Quinlan, D.M., Chevron, E.S., et al. Dependency and self-criticism: Psychological dimensions of depression. Journal Consult Clinical Psychology, 1982, 50, 113-124.

Caplan, G. Principles of preventive psychiatry. New York: Basic Books, 1964.

Fowler, R.C., Liskow, B.L., Tanna, V.L., et al. Psychiatric illness and alcoholism. Alcoholism: Clinical and Experimental Research, 1977, 1, 125-128.

Freeman, S.J., Formo, A., Alampur, A.G., et al. Psychiatric disorder in a skid-row mission population. Compr. Psychiatry, 1979, 20, 454-462.

Goldberg, D. The detection of psychiatric illness by questionnaire. London: Oxford University Press, 1972.

Halikas, J.A., Herzog, M.A., Mirassou, M.M., et al. Psychiatric diagnosis among female alcoholics. Curr. Alcohol, 1981, 8, 283-291.

Hesselbrock, M.N., Hesselbrock, V.M., Tennen, H., et al. Methodological considerations in the assessment of depression in alcoholics. Journal Consult Clinical Psychology, 1983, 51, 399-405.

Keeler, M.H., Taylor, C.I., and Miller, W.C. Are all recently detoxified alcoholics depressed? American Journal of Psychiatry, 1979, 136, 586-588.

Maguire, G.P. Julier, D.L., Hawton, K.E., et al. Psychiatric morbidity and referral on two general medical wards. British Medical Journal, 1974, 1, 268-270.

Ottenberg, D.J. Clinical and programmatic perspectives, in E. Gottheil, A.T. McLellan and K.A. Druley, Substance abuse and psychiatric illness. Proceedings of the Second Annual Coatsville-Jefferson Conference on Addiction, 1978. New York: Pergamon Press, 1980.

Powell, B.J., Penick, E.C., Othmer, E., et al. Prevalence of additional psychiatric syndromes among male alcoholics. Journal of Clinical Psychiatry, 1982, 43, 404-407.

Robins, E., Gentry, K.A., Munoz, R.A., et al. A contrast of the three more common illnesses with the ten less common in a study and 18-month follow-up of 314 psychiatric emergency room patients. II. Characteristics of patients with the three more common illnesses. Archives of General Psychiatry, 1977, 34, 269-281.

Rounsaville, B.J., Weissman, M.M., Kleber, H., et al. Heterogeneity of psychiatric diagnosis in treated opiate addicts. Archives of General Psychiatry, 1982, 39, 161-166.

Rund, D.A., Summers, W.K., and Levin, M. Alcohol use and psychiatric illness in emergency patients. Journal of the American Medical Association, 1981, 245, 1240-1241.

Schuckit, M.A. Treatment of alcoholism in office and outpatient settings. In J.H. Mendelson, and N.K. Mello eds., The diagnosis and treatment of alcoholism. New York: McGraw-Hill, 1979.

Tyndel, M. Psychiatric study of one thousand alcoholic patients. Canadian Psychiatric Association Journal, 1974, 19, 21-24.

Weissman, M.M., Myers, J.K., and Harding, P.S. Prevalence and psychiatric heterogeneity of alcoholism in a United States urban community. Journal of Studies of Alcohol, 1980, 41, 672-681.

THE QUESTION OF FRAMES OF REFERENCE IN PRIORITY SETTING THE CONTRIBUTION OF THE SCIENCES OF SOCIOLOGY AND ANTHROPOLOGY

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ABSTRACT

The anthropological and sociological perspectives enable us to clarify and broaden our understanding of how social and cultural phenomena influence psychiatric problems, their evolution, and their handling. The anthropological perspective encourages researchers and interveners to go beyond the limitations of their own frame of reference and can therefore make a specific contribution to priority setting by laying open to question both the perspectives behind our interventions and the areas to which we assign priority.

The concrete interest in this undertaking is illustrated in two different areas. The first concerns the mechanisms that intervene between a need-as-problem and its translation into a need-of-intervention. This leads to an examination of the importance people assign to professional interveners for solving their problems, and of the functioning and limitations of the referral and support systems in specific communities.

The second area is the interventions themselves. Greater attention to the social and cultural mechanisms involved in mental health problems can direct the planning of interventions within a community context by leading us to adopt a more systemic position and to take into account the importance people and groups assign to various types of resources. This perspective can also contribute to the design of interventions giving more consideration to the personal and social dynamics of the patients and to their milieu. It can also act as a guide for evaluation of the concrete modes in which the various programs function.

Priorities merit consideration not only when one is choosing fields in which to intervene, but should also be involved in a choice of those components of an intervention to which one will assign priority. This second point is the one I shall address here, examining the way that the sociological and anthropological perspectives can assist us in placing the question of mental health services in a new context.

Other papers have focused on the contribution epidemiological research can make to planning services. It allows a certain number of target populations to be determined and programs created that focus directly on those populations which are at highest risk, and is therefore a vital planning tool. The contribution of the other social sciences towards the planning of psychiatric services is stressed less often, although it is actually complementary to that of epidemiology, which remains limited in its approach to the social and cultural processes related to health problems. These limitations are principally of three types:

a) a limitation in its approach to social and cultural phenomena. Current epidemiological studies approach social phenomena most often via the examination of such social variables as profession, socio-economic level, sex, and education of the subjects. Similarly, culture is generally reduced to easily detected and quantifiable habits of lifestyle. Thus the interest of the first studies in psychiatric epidemiology in a more all-encompassing approach to the socio-cultural context (for instance studies within a context of urban ecology or those focused on a concept of social disintegration) has been put somewhat "on the back burner." Emphasis has been placed almost exclusively on improving the instruments that measure mental health problems and psychiatric symptoms, and although this monitoring is admittedly crucial, it has been conducted at the expense of any theoretical or methodological reflection upon our approach to the social and cultural context.

b) a problem relating to the interpretation of data collected using epidemiology. There is a ready tendency to interpret in a unidirectional, causal - and therefore too simple - sense the relationships observed between two categories of variables. Moreover, a correlation does not, in itself, indicate the processes underlying the relationships observed (Gould, 1983).

c) a difficulty relating to the level of the use to which the data are put in the planning process, as a result of confusion between a need-problem and the translation of that need into a need-of-intervention. I will return to this subject later.

I would like to suggest here that the approaches developed more particularly in medical sociology and anthropology have helped to augment our understanding of the social and cultural processes involved in health problems, and to design different forms of intervention. In the field of sociology, I am mainly thinking of the concept of the social network, which allows us to understand how macrosocial factors work on individuals and how these people respond to this influence (Hammer, 1981). The concept of the social network also facilitates development of a truly social approach to the natural support systems; present epidemiological studies merely accord more importance to social support, but consider it as a single variable.

In the approach taken by anthropologists, I am concerned mainly with two major traits: the constant need to place a behaviour, attitude, or belief within its context in order to understand its meaning, and the importance of being able to remove oneself from one's own system of reference in order to seek to understand how things are organized from the point of view of the group being studied.

I shall proceed along two different lines in order to elucidate the contribution of these two perspectives to the planning of health services. The first involves the notion of need and its relationship to the intervention; the second is more specifically concerned with the modalities of the intervention.

The process from need to intervention

We can identify a number of stages within the process that leads to the redefinition of an initial problem as one coming under the jurisdiction of psychiatric services:

a) the initial problem must be sufficiently serious to appear important to the person or to those around him;

b) the problem must be defined as a problem requiring outside help;

c) that help must be defined as requiring specialized services;

d) the problem must fit within the range of problems that such services can resolve within the means at their disposal.

What appears to be a continuous process is, in fact, a potentially discontinuous one, in that the first three steps and the last are related to different logics.

In the case of alcoholism, for example, it is recognized that an alcoholism problem is very often not identified as such unless accompanied by behavioural manifestations or significant relationship problems. Even then, the problem is not often perceived as being within the jurisdiction of medical or psychiatric services. Outreach services from either of these professions may have no effect whatsoever on the population, or may even have unexpected negative effects. In the case of native communities, researchers close to certain native groups have told me that it is often difficult for an outside observer to differentiate between collective behaviour that is culturally associated with festivals and rituals, individual deviant behaviour, and chronic manifestations of a state of social anomia.

The duality of lay and professional conceptions of health problems has often been acknowledged by service organizers or providers, but this acknowledgment serves most often as the basis of intervention strategies aimed at reducing the differences through information or community education campaigns. Good and Delvecchio-Good (1981) have noted that cultural conceptions are often interpreted by the professionals as a "distortion" that must be reduced or reformulated. Since so many of the arguments used in the media for such information campaigns are borrowed from the world of professional intervention, we may doubt their ability to reach the target population and to produce the desired changes.

Returning to the first stage that I mentioned above, the recognition of the seriousness or importance of the problems by the individuals themselves, mention must be made of the original approach adopted by a team working in our research unit under the direction of Drs. H.B.M. Murphy and Viviane Kovess to determine the indicators of physical and mental health. They sought to pinpoint the perceived impact of health problems by examining their repercussions on role functioning, as designated and qualified by the individual and those close to him. One of their hypotheses is that the more a problem is perceived as interfering with day-to-day life, the more likely it is to lead to taking steps to seek assistance.

Anthropological and sociological research on the next two steps in the process: initiation of steps to seek help and selection of specific resources, have shown a direct link to two categories of variables:

- cognitive, symbolic and experiential variables, contributing to the formation of "explanatory models" as described by Kleinman (1982), a psychiatrist and anthropologist. These models confer a sense of experience and orient behaviours that are a response to the problem. Kleinman has demonstrated that an individual's explanatory models represent a particularization of those of his family, which are in turn a particular version of what is found in the society or social group. This has a double-barreled implication: on the one hand, one cannot understand an individual's interpretation systems without placing them within the context of the attitudes, beliefs, and values of his social group, and on the other hand, the broader context is not sufficient in itself to predict the attitudes and behaviour of individuals with certainty.

- contextual variables of a social and cultural order. Here the structure of the group allows prediction of how much the community represents what Friedson (1961) calls a "lay referral system". On the other hand, the cultural values prevailing within that group influence the type of response that the members of the referral system bring to the problem and particularly the probability that they will refer the individual to specialized professional services.

We could no doubt add a third category of variables: the structure of the individual's social network (McKinlay, 1973; Laumann, 1974; Hirsch, 1979; Granovetter, 1982).

A better understanding of the functioning and limitations of the referral systems found in a given community is, I feel, important to the planning process for a number of reasons. It allows:

- better delineation of the community's limits as to what problems it can or will assume responsibility for;

- creation of models for collaboration between professionals and those community resources to which the population itself has assigned a consultative or helping role;
- complementing of our models of intervention by models of consultation with a view to sustaining and reinforcing the action of local resources.

One of the essential points to be noted here is that, if there is any difference between the body of problems that can be detected by a survey of the population and those coming under the jurisdiction of a psychiatric intervention, that difference is not determined solely by the professionals as a function of the competency they feel that they have; it is also shaped by the population and the competency they feel we have with respect to those same problems. It is important for us to have more understanding of the place that people assign to us in resolving their problems.

Although there is theoretical recognition of the value of such a process and current policy statements stress a collaboration with local resources, there is still not much research available to permit this approach to be based on precise empirical data, and to be adapted to specific social and cultural dynamics. It is my impression that planners and intervenors do not possess the methodological and conceptual tools to allow them to go beyond the logic of their realm and to thus open up their strategies of intervention.

The logic of intervention

This decentralization of points of view, which allows a broader recourse to the social sciences, can also operate at another level; the interventions themselves. It leads to questioning how pertinent the orientation of certain interventions is with respect to the target populations or clienteles. I shall give three different examples of this:

The first involves the planning of interventions to be carried out within a community context. Here I would like to address two points: the first concerns the difficulty we have in adopting a systemic perspective in our preventive strategies or in crisis interventions which would address the context of the problem as well as its more immediate manifestations.

Taking child abuse as an example, recent research summarized by Bouchard (1983) indicates that violence toward children is the result of a series of factors concerning family dynamics, the relationship between the family and its environment, and broader factors involving the organization of society and its prevailing values and standards. This ecological or systemic understanding of problems is not, however, transposed to the interventions, which remain family-centred, involving parental re-education or therapy. Here the issue is not so much a lack of basic research as the inability to make the connection between research and action.

In the majority of psychiatric problems, however, not even the basic research is available to allow existing data on family dynamics, the structure and interactional characteristics of the social networks, and the more general characteristics of certain life situations to be linked together. There are two obvious shortcomings here: a difficulty in operationalizing the approach to these different aspects of the social and a lack of conceptual framework allowing a link to be made between these various levels.

The second point I would like to make here concerning community approaches concerns a line of intervention currently popular among those working in mental health: the mobilization of natural support systems. Research done among the elderly in Quebec (Corin et al, 1983) has shown that it may be inappropriate to apply terms that are too broad to this area. If we compare rural and urban or well off and less well off areas, for example, we observe differences in the importance the elderly assign to the various resources in their strategies for seeking assistance. The importance assigned on the emotional and instrumental level to the spouse, to various family members, to neighbours, are not only a reflection of the availability of people but also of the different standards and values from one community to another, and of a different view of the division between the public and the private. Very little research has addressed this question, although it seems to be vital at a time when the idea of working with the community is acquiring a normative value.

My second example is that of interventions with the chronic psychiatric patient research in recent years has demonstrated that, in their case, the "most" intervention is not necessary the "best" (Linn et al, 1979; Schooler and Spohn, 1982), and that it is necessary to respect what might be called an optimum social distance, as a function of the degree of tolerance that these people have for social contact (Jiled 1968, Murphy et al, 1976). There is therefore somewhat of a tendency today to stress programs focussed on the acquisition of concrete skills, but some research of a more anthropological nature suggests that these patients' social environment and what might be called their "social coping strategies", present certain specific characteristics upon which we might base the organization of our interventions (Garrison, 1978; Beels, 1981; Estroff, 1981).

In the same vein, an impressive number of works report the relative failure of de-institutionalization programs, and list among the factors responsible the difficulty patients have in finding a place in society again. There are, however, few data available to document the way social re-integration operates; the relational dynamic involved is little known as are the contextual factors influencing it positively or negatively. Studies by (Brown et al, 1972) are a step in the right direction but they are limited to one aspect: a very specific aspect of the relational field.

Such studies again demand that we be able to move away from our perception of patients to seek what is being organized from their point of view and that of their families and friends.

Finally - and with this I shall close - one might apply a similar perspective to the field of evaluation of psychiatric services.

We are becoming increasingly aware that it is not sufficient to measure the outcome of a program and compare it with the objectives. We must, on the one hand, question ourselves about the place these programs occupy for the various categories of patients under the responsibility of the department of psychiatry, and investigate whether, and how much, they leave large segments of the psychiatric patient population aside; this is one of the objectives of Bachrach's suggested systemic evaluation (1982).

It seems to be as important to examine how the concrete implementation of programs takes place and how they function effectively as it is to measure their results - which are otherwise likely to be hard to interpret. This study of the implementation of programs would benefit from certain observation and interview techniques used in anthropology and sociology. Dr. H.B.M. Murphy's work of some years ago (Murphy et al, 1972 and 1976) on foster homes shows how interesting such a perspective can be.

Toward a social and cultural perspective

It was not my intent here to suggest some new miracle approach to psychiatric problems and mental health services. At a meeting like this one, which is evidence of our desire to step back a bit from the current situation, and to question ourselves on what priorities it would be advisable to adopt, I simply wished to suggest that it might be useful - perhaps even important - to profit from the opportunity to get further away from our professional way of looking at these issues.

Dr. Leighton (1982) has recently pointed out the cyclical character of the social orientations of psychiatry, with its waves of expectations and disenchantment, and proposed several hypotheses to explain this series of failures.

I personnally consider two of these hypotheses to hold true: the necessity of specifying and complexifying our approach to the social and cultural phenomena, the study of which requires as much conceptual and methodological sophistication as does the study of psychiatric problems; and the importance of examining the specific processes that link the social and cultural realities to psychiatric problems, their origin and their handling.

With respect to research strategies there is no doubt that we would have to think much more often of pairing extensive research (which allows a general overview of the problems) with more intensive research aimed at casting light on the processes underlying the data collected and thus allowing us to adjust our interventions.

References

Bachrach, L.L., 1982, Assessment of Outcomes in Community Support Systems: Results, Problems and Limitations. Schizophrenia Bulletin, 8, 1: 39-60.

Beels, C.C., 1981, Social Support and Schizophrenia. Schizophrenia Bulletin, 7, 1: 58-72.

Bouchard, C., 1983, L'intervention psychosociale et la violence envers les enfants. Enfant et famille, Numéro spécial de la revue (special issue of) Santé Mentale au Québec, 8, 2: 140-146.

Brown, G.W., Birley, J.T.L. and Wing, J.K., 1972, Influence of Family Life on the Course of Schizophrenic Disorders: a Replication. British Journal of Psychiatry, 121: 241-258.

Corin, E., Sherif, T. and Bergeron, L., 1983, Le fonctionnement des systèmes de support naturel des personnes âgées, Laboratoire de Gérontologie Sociale, Faculté des Sciences Sociales, Université Laval, miméo 306 pp.

Estroff, S.E., 1981, Making It Crazy. An Ethnography of Psychiatric Clients in an American Community. Berkeley: University of California Press.

Freidson, E., 1961, Patient's View of Medical Practice. New York: Russel Sage Foundation.

Garrison, V., 1978, Support Systems of Schizophrenic and Non-Schizophrenic Puerto Rican Migrant Women in New York City. Schizophrenia Bulletin, 4, 4: 561-596.

Good, B.Y. and Delvecchio-Good, M.J., 1980, The meaning of symptoms: a cultural hermeneutic model for clinical practice. In: L. Eisenberg and A. Kleinman (eds). The Relevance of Social Science for Medicine, Reidel Publishing Company: 165-196.

Gould, 1983, The Mismeasure of Man, New York: Bantam.

Granovetter, M., 1982, The Strength of Weak Ties: A Network Theory Revisited. In: P.V. Mardsen and N. Linn (eds). Social Structure and Network Analysis. Beverly Hills, Sage Publications: 105-130.

Hammer, M., 1981, Social Supports, Social Networks, and Schizophrenia. Schizophrenia Bulletin, 7, 1: 45-47.

Hirsch, B., 1979, Psychological Dimensions of Social Networks: A Multimethod Analysis. American Journal of Community Psychology, 7: 263-277.

Jilek, W.G., 1968, The Residual Dimension. A Study of Residual Syndromes in Veterans with Chronic Psychiatric Illness. 1. *Psychiatria Clinica*, 1: 175-218.

Kovess, V., Murphy, H.B.M., Tousignant, M. and Fournier, L., 1982, Les indicateurs de santé mentale. *Texte miméo*. (mimeographed).

Kleinman, A., 1980, *Patients and Healers in the Context of Culture: An Exploration of the Borderland between Anthropology, Medicine and Psychiatry*. Berkeley: University of California Press.

Laumann, E.O., 1974, *Bonds of Pluralism: The Form and Substance of Urban Social Networks*. New York: John Wiley and Sons.

Leighton, A.H., 1982, *Caring for Mentally Ill People. Psychological and Social Barriers in Historical Context*. New York: Cambridge University Press, 1982.

Linn, M.W., Caffey, E.M., Klett, C.J., Hogarty, G.E. and Lamb, H.R., 1979, Day Treatment and Psychotropic Drugs in the Aftercare of Schizophrenic Patients. *Archives of General Psychiatry*, 36: 1055-1066.

McKinlay, J.B., 1973, Social Networks, Lay Consultation and Help-Seeking Behavior. *Social Forces*, 51: 275-292.

Murphy, H.B.M., Engelsmann, F. and Tcheng-Laroche, F., 1976, The Influence of Foster-Home Care on Psychiatric Patients. *Archives of General Psychiatry*, 33: 179-183.

Murphy, H.B.M., Pennee, B. and Luchins, D., 1972, Foster Homes: New Back Wards? *Canada's Mental Health Supplement*, No. 71: 1-17.

Schooler, C. and Spohn, H.E., 1982, Social Dysfunction and Treatment Failure in Schizophrenia. *Schizophrenia Bulletin*, 8, 1: 85-98.

THE ROLE OF RESEARCH IN PROGRAM DEVELOPMENT

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ABSTRACT

Since ideal approaches to priority-setting are rarely possible, one must seize and implement all opportunities for mental health programs and place them, in order of occurrence, within a rational long-term plan (The Principle of "Goal-Directed Opportunism"). Program opportunities are multiplied when there is a steady stream of research projects, as illustrated here by stress research leading to support programs for populations at risk, including widows, cancer patients, amputees, families bereaved by suicide, university students, and certain occupational groups. Illustrating the more ideal approach is an investigation of the community adjustment of discharged psychiatric patients and the resulting programs.

There is an axiom in hockey which states that, unless there is an extremely good reason to pass, one should shoot the puck at the net every chance one gets. The rule arises from the observation that, somehow or other, a remarkable number of pucks manage to land in the net if one keeps shooting in that direction. In an analagous way, I would submit that if we measure the output of mental health programmers in terms of the number of new projects initiated, the likelihood is that those organizations undertaking research studies of any kind at any time will have a higher "score" than those who insist on the ideal need-finding, priority-setting research. In short, a surprising number of motives for research and a surprising variety of types of research give rise to new programs.

Of course, the ideal approach consists of the application of insights gained from the literature to a study of the needs and resources of one's own community, followed by the introduction of a well-evaluated intervention. Many studies are started because of the need to evaluate an already existing program, or because of the sudden availability of funding, or because the subject is currently popular or politically expedient. Sometimes a research project is chosen simply because the sampling frame is readily accessible to the research group, or because the problem is of challenging theoretical interest, or sometimes, as was the case in at least two of our studies, because there is a need to find a topic for a Ph.D. dissertation. I will readily admit that this is not the way we were taught to do research or, for that matter, community development, but if I were the Commissar-in-Charge-of-Money-for-Community-Mental-Health, I would be quick to make sure that most groups who are in a position to develop programs are also in a position to carry out a very wide range of research investigations. My thesis is that, when the final tally is taken, such groups will have produced the highest number of useful projects. I should like to spend the rest of this paper illustrating and, I hope, justifying the rather slipshod principle that I have just enunciated. However, I shall end with an example close to the "ideal" situation which I mentioned above, just to demonstrate that it really is the best way to go about these things.

My first illustration is not of a piece of research but rather of the kind of organization which has the mandate and the wherewithal to carry out both program development and research, namely, the Social and Community Psychiatry Section of the Clarke Institute of Psychiatry. This unique group owes its existence to the vision of Dr. R.C.A. Hunter, who was Director of the Clarke Institute in 1972 when this section came into being, and to his successors, who saw fit to support its continuation. Professor Hunter saw the importance of establishing a group of professionals of varied backgrounds and of giving them protected time to carry out research, to teach, to develop programs and, in fact, to strike out in any direction that could vaguely be labelled social or community psychiatry. This format has proved to be quite effective in producing training courses, research papers, and new mental health programs. Its main research interest was prevention of mental disorder. Arising inevitably from this focus of interest was the question, "Is primary prevention feasible in psychiatry?" This led, in turn, to an exploration of several populations that had experienced one form or another of psychosocial stress. The assumption was that, if a population at risk could be identified early, some sort of intervention might be mounted to prevent unfavourable health outcomes. This section's other service interests were in the areas of secondary and tertiary prevention. Here we strove to fill the gaps in the spectrum of services available to the mentally and emotionally disordered patients in Toronto and other parts of Ontario.

In our work with populations that had experienced various serious life-event stressors, we were interested in some of the following questions. Can one demonstrate that these stressors do, in fact, give rise to or precipitate emotional distress, physical symptoms, or disease states? What are the factors that increase the likelihood of a maladaptive stress reaction? What physical, psychological, or social factors act as buffers against the undesirable effects of the stressors? What kinds of interventions might work to prevent deleterious health outcomes?

The first group to be studied were 162 widows selected consecutively from seven Toronto hospitals where their husbands had died (Sheldon, Cochrane, Vachon, Lyall, Rogers, and Freeman, 1981; Vachon, Lyall, Rogers, Freedman, and Freeman, 1980; Vachon, Rogers, Lyall, Lancee, Sheldon, and Freeman, 1982; and Vachon, Sheldon, Lancee, Lyall, Rogers, and Freeman, 1982). These women were given written questionnaires at one month, six months, one year, and two years after the death of their husbands. In addition, a subsample of 68 widows was also contacted by a trained "widow contact", who was herself a widow who had worked out her own bereavement difficulties and who was now offering to help other widows in any way that seemed appropriate.

Figure 1 shows the three kinds of reaction to bereavement found in our subjects. The middle curve represents the commonly expected resolution of grief; that is, the GHQ score (our indicator of distress) starts off high and comes down to a low lever over a two-year period. The upper curve represents those subjects who started with a high distress score but were still highly upset after two years. The bottom curve represents an interesting group of women who never did show signs of distress as measured by the GHQ. Figure 2 indicates the strong effect of social support as a modifier of the reaction to this stressor. In our later work, like many other investigators, we were to find this protective effect of social support again and again; it is probably the major factor accounting for the results shown in Figure 3. These results show that the subjects seen by our "widow contacts" achieved freedom from their inner turmoil ("intrapersonal adaptation") sooner than the control group. They went on to resume their usual patterns of interpersonal relationships and social roles ("interpersonal adaptation") earlier than the controls and achieved a "normal" GHQ score before the control group had reached that level of adaptation. Thus, the use of an experimental design demonstrated that the "widow-to-widow" approach was effective.

By this time we had a cadre of trained "widow contacts", we had a program of proven efficacy, and we had good relations with the staff of many hospitals. It was relatively easy to build on this base and to carry on the work as a service to Toronto. The organization is called "Community Contacts for the Widowed," and operates under its own board with its own funding (Rogers, Vachon, Lyall, Sheldon, and Freeman, 1980). The model has been replicated in over 25 communities in Canada and the United States.

In another group of women, we studied the impact of breast cancer, particularly with respect to the comparative stressfulness of two kinds of treatment settings to which they were referred for post-surgery radiation (Vachon, Lyall, Roger, Cochrane, and Freeman, 1981-1982). The first was a residential setting where the staff was very cognizant of the need to keep communication open with the patients, to answer their questions with as much information as they really wanted to hear, and to encourage the patients to give each other support. The other setting was a typical outpatient department, to which the patients came by appointment for treatment, and which afforded little opportunity for any kind of psychosocial support from either staff or fellow patients. The outcome of this study led to the establishment of a number of Coping With Cancer groups around the city. The second generation of these groups is now being operated by Princess Margaret Hospital Lodge and by the Canadian Cancer Society, Ontario Division.

A survey of 50 recent amputees undergoing rehabilitation therapy at a chronic hospital gave rise in a similar manner to an ongoing group support program. The groups were made up of hospital staff, amputee patients, and "veterans" who had been through their amputation some time ago and who now came in to share their experiences and coping techniques with the patients (MacBride, Rogers, Whylie, and Freeman, 1980; & Rogers, Whylie, MacBride, and Freeman, 1977-1978).

FIGURE 1

Three Kinds of Reaction to Bereavement
Variation Over Two Years of GHQ Scores in Widows

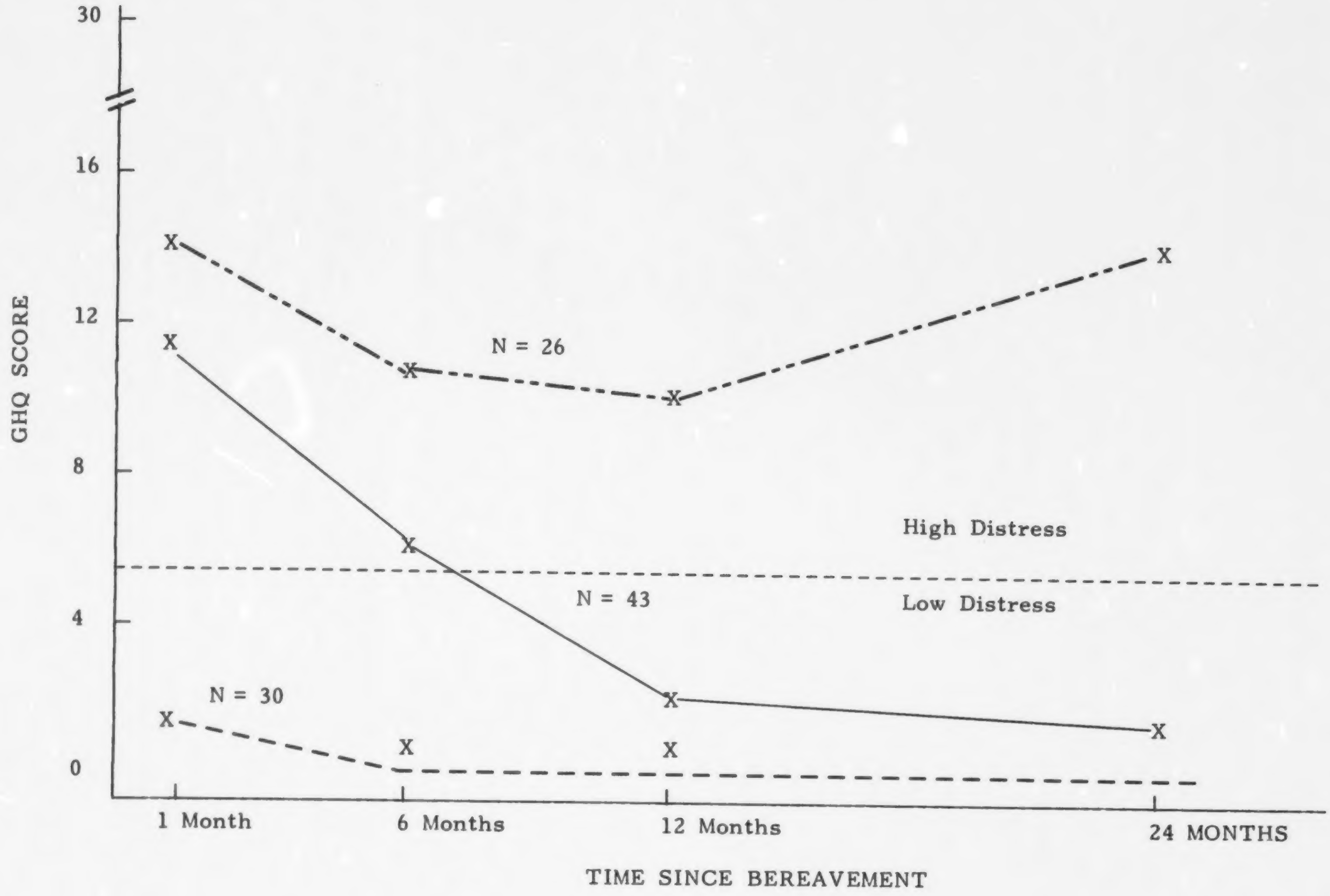


FIGURE 2

Bereavement Study: Deficit in Social Support and Probability of High Distress at Two Years

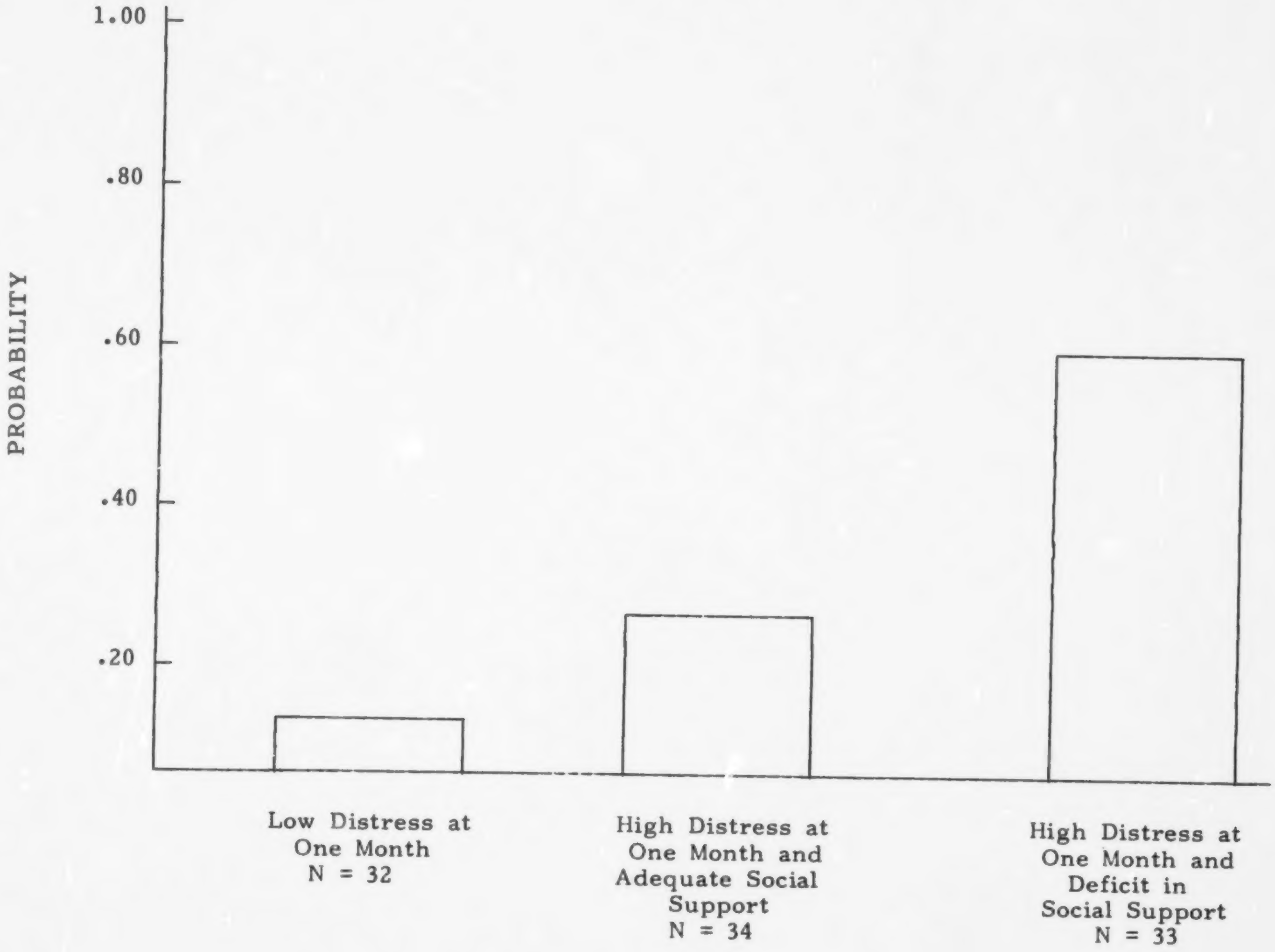


FIGURE 3

Differences in Adaptation in Widows Between Intervention and Control Groups

(** INDICATES INTERVENTION GROUP SIGNIFICANTLY BETTER)

	6 Months	12 Months	24 Months
Intrapersonal Adaptation	**	---	---
Interpersonal Adaptation	---	**	---
GHQ Score	---	---	**

Unexpected spin-offs occur with some regularity when any research takes place. Our work with bereavement brought a call from a local crisis centre about the possibility of mounting a specially designed support program for those who had been bereaved by the suicide of a relative. This gave rise to a program now operated by the Distress Centre of Toronto in which specially trained volunteers meet with the families of the suicide (Rogers, Sheldon, Barwick, Letofsky, and Lancee, 1982).

Motivated in part by the need for a PhD. dissertation topic, we surveyed 450 depressed university students, some attending a university psychiatric clinic and the rest found among controls selected at random from the enrollment computer. The questions asked related the onset of depression to life events, social support, family history, and early loss (O'Neil, 1983; O'Neil, Lancee, and Freeman, 1983, in press). The results of this study had clear implications for program development. For example, it pointed to the need for special attention to out-of-town students as well as the need for increasing the sensitivity of teaching staff and clinic staff to the manifestations of depression in the student population. At the time of writing, a carefully evaluated trial is being performed, aimed at raising the awareness of the medical clinic staff to the presence of mental and emotional dysfunction.

Occupational stress in a number of employee groups was studied including 651 Air Traffic Controllers, 712 Air Transport workers at all levels in the organization, 340 workers in a public utility, and 82 meterological technicians working under harsh, isolated conditions (MacBride, Lancee, and Freeman, 1978, 1981). Studies of stress in these populations continued to point out the importance of social support, both at work and at home, as a modifier of stress. More recently, we have found that the personality variable, self-efficacy (Ilfeld, 1978), is also an important factor in modifying the effects of a stressor. The work on occupational stress has led, particularly in one of the populations studied, to a series of recommendations about personnel selection, personnel training, management training, early detection of stress reactions, and stress management; that is, research has demonstrated the needs as well as some of the solutions on which new programs will be based.

I shall now give an example of a research project which did not lead to a new programming but rather to the equally important decision not to develop a program. Folk "wisdom" would have us believe that retirement is extremely stressful, if not lethal, and so we wondered whether some sort of preventive intervention could be mounted. A careful review of the existing literature failed to confirm the popular stereotype (MacBride, 1976). This was followed by a study of 265 school teachers, male and female, rural and urban, in both voluntary and forced retirement, which showed that there was very little stress in the group both immediately before and up to a year after retirement (Wasylenki, 1980). Although we recognized that there were limitations in the extent to which the results of the study could be generalized, we decided to put our program development energies elsewhere.

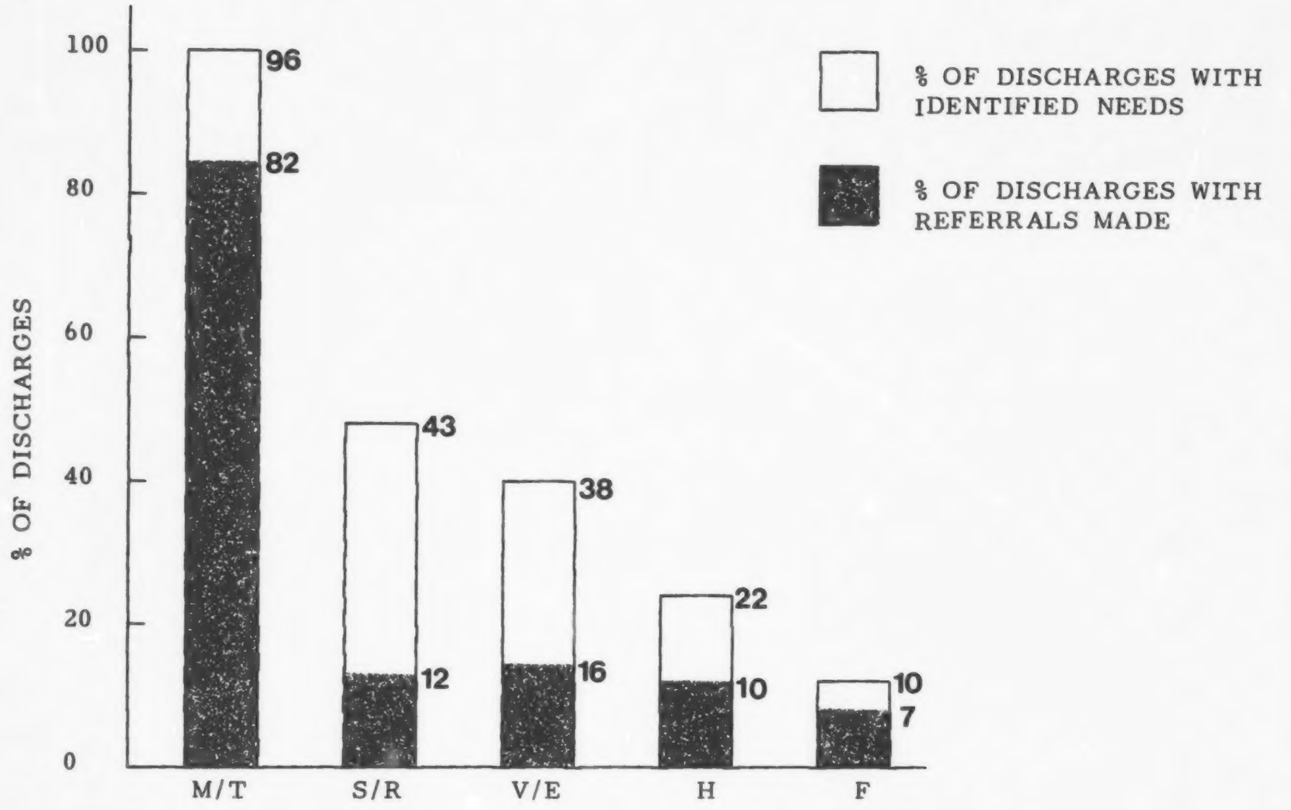
The next example comes much closer to the kind of ideal research that we would all like to see carried out more often than it is, and illustrates the proper way to select priorities and to predict the optimal shape of interventions. The Ministry of Health of Ontario, having been repeatedly informed that the chronic patient was one of the most important priorities in the development of psychiatric services today, commissioned this study. They were cognizant of the fact that, in the past 30 years, the mental hospitals had disgorged about 70% of their patients into a community that was in no way prepared to receive them. They were increasingly aware that, despite tremendous advances in pharmacotherapy, this was still a chronic population which needed not only the "cure" facilities provided by hospitals but also "care" facilities such as housing with varying levels of supervision, vocational rehabilitation, social recreational facilities and, above all, continuous monitoring. It was clear that no one was responsible for these chronic patients in the sense that a parole officer might be responsible for a prisoner who had been discharged on parole.

Accordingly, the Ministry of Health asked Community Resources Consultants of Toronto, a government sponsored coordinating agency, and the Social and Community Psychiatry Section of the Clarke Institute to find out what happened to patients in the community after they had been discharged from a psychiatric inpatient setting. Of 883 patients from four psychiatric units approached while still in hospital, 744 gave permission to interview the staff looking after them. After discharge they were followed in the community for six months, at which time it was possible to find and interview 505 of them. Of that group, 488 were traced and interviewed two years after discharge. The patients came from a provincial mental hospital, a psychiatric institute, a downtown teaching general hospital, and a non-teaching, suburban community hospital (Goering, Wasylenki, Lancee, Fischer, and Freeman, 1981, 1983; Wasylenki, Goering, Lancee, Fischer, and Freeman, 1981).

We were interested in the hospital staffs' estimates of their patients' needs, and whether the referrals that the staff had made reflected these assessed needs. Figure 4 indicates the assessment of needs and the actual referrals made by the staff. Three things are immediately obvious. The overwhelming majority of cases were thought to be in need of medical/ therapeutic referrals. In contrast, the other services, which could be considered part of the "care" (rather than "cure") component, are not well subscribed. Finally, note the discrepancy between the estimates of need and the referrals actually made. When we asked the staff why they so frequently failed to translate assessment of need into referral, their answers were "the patient was unwilling," or "I left it for him to arrange," or "the patient was not ready," or other answers in this vein. Surprisingly the answer "there are no facilities" was given only infrequently. One could not help gaining the very strong impression that most of the reasons given for not referring these patients to needed services had to do with the negative symptoms which might be expected in the chronically mentally ill. To put the situation in its most paradoxical form, the patients were not referred for help because they exhibited the symptoms for which they needed help.

FIGURE 4

Identified Needs and Referrals Made



M/T = MEDICAL/THERAPEUTIC
S/R = SOCIAL/RECREATIONAL
V/E = VOCATIONAL/EDUCATIONAL
H = HOUSING
F = FINANCIAL

From: Psychiatric Aftercare in Metropolitan Toronto (Goering, Wasylenki, Lancee, Fischer, and Freeman, 1981).

Table 1 indicates that, after six months, the 505 patients followed had actually made very good use of most of the services available to them. The excellent compliance of the patients who were given medical/therapeutic referrals should be noted. However, note also that the patients made considerable use of non-medical referrals as well. For example, quite a few more patients than were originally referred had contacted social/recreational services. And it is of special interest that only 29% of those who used these services did so on the basis of a referral at the point of discharge from the hospital. This fact confirmed our strong belief that there was clearly more of a "market" for social/recreational services than the hospital staff realized. One further finding corroborates this hypothesis: when the patients were asked about their satisfaction with the various services, social/recreational services rated highest of all.

TABLE 1

Amount of Service Use in
Six Months by Aftercare Component
(N = 505)

Component	Number of Contacts	Number of Visits
Medical/therapeutic	775	11,582
Vocational/educational	138	4,434
Financial	64	192
Social/recreational	102	2,376
Housing	95	1,039

Note: From Psychiatric Aftercare in Metropolitan Toronto (Goering, Wasylenki, Lancee, Fischer, and Freeman, 1981).

The first lesson arising from this investigation was that we were in need of better assessment and referral procedures at the point of discharge from hospital.

In terms of patient compliance with staff referrals, we found it to be excellent for the medical/therapeutic, housing, and financial referrals. It dropped off somewhat for vocational referrals, and was really quite poor for social/recreational referrals. Nevertheless we have already seen that patients later joined the social/recreational services and were very pleased with them. We tried to find out from the patients the reasons for not completing a referral; they gave such answers as, "I didn't agree with the referral," or "there were practical problems that interfered." Of particular interest was the fact that 24% of them stated that they never heard of the referral in the first place.

The second place arising from this study is that we will need in addition to better assessment and referral procedures, some way to link the patient to the community services to which he has been referred. The case manager model, which includes escorting the patient to the new service and facilitating his use of it, would be an example of such a linking mechanism.

It is clear from the frequency of medical/therapeutic referrals and from the high compliance with such referrals that both staff and patients shared the belief that the sickness model was the most helpful one; that is, "cure" services greatly overshadowed "care" services. To whom, then, were these referrals made? The most interesting part of the answer to this question was that 69% of the referrals were made by individual therapists and group programs within the hospital in which the patient had been hospitalized. We know by now that this promotes the sick role, promotes hospital dependence, and makes admission more likely at the next setback in the patient's life.

The third lesson to be gleaned from this research is based on this referral data and corroborates what we have been suspecting for some time: the twenty-year-old movement advocating the necessity of hospitals reaching out into the community is not working very well. The time has perhaps come for inreach rather than outreach, for community agencies to go to the hospital in order to bring the patient out into the community and its services. I shall mention, in a moment, how this concept has been turned into a program.

If we believe in the illness model and if, as our referral and compliance data show, we are following it fairly well, how then is it working? The answer is, not very well. Using the percent of the time in which the patients functioned reasonably well in the previous six months as an indicator of social functioning, we find that fewer than 50% functioned most of the time and that, even after two years, almost a quarter could only be said to function well between 0% and 25% of the time. If we look at our statistics every two-year period, 63% of the sample (N = 472) were readmitted at least once. Over 70% of the schizophrenics were readmitted but, perhaps more disappointingly, 44% of those with a diagnosis of "neurosis" were readmitted.

Lesson four, therefore, suggests to us that the illness model stressing "cure" services is not working well, and that we should pay increased attention to increasing the proportion of "care" services available to chronic patients. This should, of course, be done within a carefully evaluated research design.

This aftercare survey has had a number of spin-offs in terms of both clinical services and further research projects. In the first place it was possible, on the basis of these data, for Community Resources Consultants of

Toronto (the community coordinating agency which helped carry out the aftercare study) to obtain a grant to establish a Rehabilitation Specialist Program. In this program, specially trained rehabilitation specialists in the employ of Community Resources Consultants "reach into" four hospitals to assess the rehabilitation needs of the most chronically ill patients, in anticipation of their discharge. The specialists help work out a program for the maintenance of these patients in the community, and also link them to and help keep them in the services to which they have been referred. In short, these workers provide both rehabilitation planning and case management functions.

The second program to emerge from the Aftercare Study is being carried out by Community Occupational Therapy Associates and Clarke Institute personnel. In this experimental program, an attempt is made to augment and strengthen the social network of each patient as a primary objective of the intervention, rather than as a side effect of placement in various therapeutic, recreational, or housing programs.

Another spin-off program has been initiated by staff of the provincial mental hospital that was part of the original aftercare study (Traynor, Boydell, and Pollock, 1984). They organized an "Assessment and Referral Unit" in response to the findings of the study. This unit focused initially on referring patients to appropriate housing, and when facilities proved inadequate, they helped organize new residential settings. They then expanded their efforts to social/recreational and other referrals. When it was found that many patients were not receiving the welfare benefits to which they were entitled, their efforts were successful in improving support payments for almost 400 individuals within case load.

The indirect program and policy spin-offs of the aftercare study are even more numerous. The District Health Council, government planners, hospitals, and community organizations have regularly made use of the data to support applications, policies, and changes in strategy.

The aftercare study has also produced a number of research spin-offs. Paula Goering, the research coordinator of the original study, was struck by the very high re-admission rate of non-psychotic women from the suburban general hospital. She has been studying prospectively a sample of 49 women with a diagnosis of Major Affective Disorder in terms of the quality of their marriage as a predictor of post-hospital adjustment. A second research spin-off is the establishment of a research unit at the provincial mental hospital which took part of the original study (Boydell and Trainor, 1984). This research unit has recently studied 100 consecutive new patients according to the same measures used in the original study, which thus serves as a control. So far she has found that there has been no change in the rate of medical/therapeutic referrals in the past three years. There is improvement in both the perception of needs and the follow-through with appropriate referrals to housing, social/recreational, and vocational/educational services. It was the discovery that the patients were not being referred as efficiently to sources of financial support that brought about the program mentioned above, which is designed to improve the levels of support payments by various welfare sources.

The gap between what is known and what is implemented in the mental health field is unconscionably wide. The choice of programs to narrow this gap must depend on a changing consensus in the psychiatric literature, on new theoretically focused research, on epidemiological data, on program evaluation, and on studies specifically designed to learn about the needs of a particular locale. The aftercare study reported above is an example of this kind of optimal approach.

Unfortunately the real world does not function rationally very often, and if we insist on operating only by the book we will accomplish only a fraction of what is possible. We must recognize that, more often than not, priorities are set by the zeitgeist, by what is fashionable or politically expedient. Sometimes they are determined by the enthusiasm, charisma, and initiative of one individual in the system. Whatever it is that may set a program in motion, we must be ready to take advantage of it. This we do by having our long-range goals clearly delineated and then inserting the programs that come our way into the "big picture," even if we must do so in the wrong order. This approach I have labelled "Goal-Directed Opportunism" (Freeman and Parry, 1972). Although it lacks neatness, it has the appeal of pragmatism.

In addition to maintaining an opportunistic watch for any potential programs coming our way, I have suggested and illustrated an additional strategem for keeping up the flow of new ways to apply our knowledge to the benefit of our patients. The proactive side of the Principle of Goal-Directed Opportunism is to keep the research pot boiling even if the studies are not in the ideal form for selecting program priorities. In my experience, a steady flow of research projects inevitably leads to a steady flow of possible program applications.

References

Boydell, K., and Trainor, J. Improving hospital discharge planning. Paper presented at the Ontario Psychiatric Association Annual Meeting, Toronto, 1984.

Freeman, S.J.J. Community psychiatry in a Canadian urban setting. *Canadian Psychiatric Association Journal*, 1972, *17*, S3-S13.

Goering, P., Wasylenki, D.A., Lancee, W., Fischer, L., and Freeman, S.J.J. Report: Psychiatric Aftercare in Metropolitan Toronto, Study by Community Resources Consultants of Toronto and Social and Community Psychiatry Section of the Clarke Institute of Psychiatry, Toronto, 1981.

Goering, P., Wasylenki, D., Lancee, W., Fischer, L., and Freeman, S.J.J. Successful aftercare referrals: Patient motivation or staff motivation? *Journal of Psychiatric Evaluation and Treatment*, 1983, *5*, 249-252.

Ilfeld, F.W. Psychologic status of community residents along major demographic dimensions. *Archives of General Psychiatry*, 1978, *35*, 716-724.

MacBride, A. Retirement as a life crisis: Myth or reality, a review. *Canadian Psychiatric Association Journal*, 1976, *21*(8), 547-556.

MacBride, A., Lancee, W., and Freeman, S.J.J. Psychosocial stress among Canadian air traffic controllers: Ontario, Quebec and Western regions. Report to Transport Canada and the Canadian Air Traffic Control Association, 1978.

MacBride, A., Lancee, W., and Freeman, S.J.J. The psychosocial impact of a labour dispute. *Journal of Occupational Psychology*, 1981, *54*, 125-133.

MacBride, A., Rogers, J., Whylie, B., and Freeman, S.J.J. Psychosocial factors in the rehabilitation of elderly amputees. *Psychosomatics*, 1980, *21*(3), 258-265.

O'Neil, M.K. Psychosocial factors and depressive symptoms in university students (Doctoral dissertation, Institute of Medical Science, University of Toronto, 1983).

O'Neil, M., Lancee, W.J., and Freeman, S.J.J. The nature of social networks in university students and variations under conditions of stress. Department of Psychiatry Research Day, University of Toronto, 1983.

O'Neil, M.K., Lancee, W.J., and Freeman, S.J.J. Fluctuations in mood and psychological distress during the menstrual cycle. *Canadian Journal of Psychiatry*. In press, 1984.

Rogers, J., Sheldon, A., Barwick, C., Letofsky, K., and Lancee, W.J. Help for families of suicide: Survivor support program. *Canadian Journal of Psychiatry*, 1982, *27*, 444-449.

Rogers, J., Vachon, M.L.S., Lyall, W.A., Sheldon, A.R., and Freeman, S.J.J. A self-help program for widows as an independent community service. *Hospital and Community Psychiatry*, 1980, *32*(12), 844-847.

Rogers, J., Whylie, B., MacBride, A., and Freeman, S.J.J. The use of groups in rehabilitation of amputees. *International Journal of Psychiatry in Medicine*, 1977-1978, *8*(3), 243-255.

Sheldon, A.R., Cochrane, J., Vachon, M.L.S., Lyall, W.A.L., Rogers, J., and Freeman, S.J.J. A psychosocial analysis of risk impairment following bereavement. *Journal of Nervous and Mental Diseases*, 1981, *169*(4), 253-255.

Trainor, J., Boydell, K., and Pollock, S. Community support for the chronically mentally ill - A new hospital-based model. Paper presented at the Ontario Psychiatric Association Annual Meeting, Toronto, 1984.

Vachon, M.L.S., Lyall, W.A.L., Rogers, J., Cochrane, J., and Freeman, S.J.J. The effectiveness of psychosocial support during post surgical treatment of breast cancer. *International Journal of Psychiatry in Medicine*, 1981-1982, *11*, 365-371.

Vachon, M.L.S., Lyall, W.A.L., Rogers, J., Freedman, K., and Freeman, S.J.J. A controlled study of self-help intervention for widows. *American Journal of Psychiatry*, 1980, *137*(11), 1380-1384.

Vachon, M.L.S., Rogers, J., Lyall, W.A.L., Lancee, W.J., Sheldon, A.R., and Freeman, S.J.J. Predictors and correlates of adaptation to conjugal bereavement. *American Journal of Psychiatry*, 1982, *139*, 998-1002.

Vachon, M.L.S., Sheldon, A.R., Lancee, W.J., Lyall, W.A.L., Rogers, J., and Freeman, S.J.J. Correlates of enduring distress patterns following bereavement: Social networks, life situation and personality. *Psychological Medicine*, 1982, *12*, 783-788.

Wasylenki, D. A study of retirement and psychosocial stress (M.Sc. dissertation, Institute of Medical Science, University of Toronto, 1980).

Wasylenki, D., Goering, P., Lancee, W., Fischer, L., and Freeman, S.J.J. Psychiatric aftercare: Identified needs versus referral patterns. *American Journal of Psychiatry*, 1981, *138*, 1228-1231.

THE FAMILY PRACTICE PERSPECTIVE ON PRIORITIES FOR MENTAL HEALTH SERVICES IN CANADA

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ABSTRACT

Estimates suggest that the pool of treatable mental dysfunction approaches one-fifth of the general population. While ninety percent of those persons are likely to see their family physician during the course of a year, about forty percent will not be identified as having a mental disorder. Emphasis should, therefore, be placed on early and accurate identification of such problems by family physicians and on the practical application of basic psychotherapy skills. It then falls on educational programs to transcend disciplinary lines in teaching these skills. We must establish priorities in the distribution of our resources. Because the basic model of medical care in Canada uses family physicians as the major provider of primary medical care, it makes sense to take advantage of this prevalent pattern as a basis of planning education to prepare family doctors to meet changing primary care needs and to build secondary preventive, consultative, and rehabilitative services in the provision of improved mental health care. A clear definition of professional roles within the health system is required so that increasingly necessary team-work can develop effectively.

What is the place of the family doctor and the family doctor's office in the provision of mental health services?

Over the past two decades in North America, family medicine has established itself as an academic discipline. With this development has come an increasing understanding of primary medical care needs and expectations. In terms of traditional ways of looking at medical needs, we find that approximately 5% of the identified disorders presented to family physicians have specific psychiatric diagnoses. A Virginia study reviewed over 500,000 visits to family doctors, and a similar study by McIntyre and Curry reviewed just over 100,000 visits in Nova Scotia and New Brunswick.

I am unable to explain the difference in the diagnoses of depressive neurosis and anxiety neurosis between the two areas. Nevertheless these figures are comparable in a broad sense.

TABLE 1

Diagnostic Frequencies per 1000 Office Visits

	Virginia[1]	Nova Scotia New Brunswick[2]
Depressive Neurosis	15	8
Anxiety Neurosis	12	22
Tension Headache	2.7	2.7
Abuse of Alcohol	2.5	1.2
Schizophrenia	1.7	1
Eneuresis	0.6	0.6
% All Visits for Mental Disorders	5.3%	4.4%

1 Marsland, Wood, and Mayo
2 Curry and McIntyre, 1981

The Canada Health Act Survey yields similar figures: 3.5% of conditions reported were mental disorders. It also identified 4% of the population aged 15 years and over as being "unhappy" and hence at high risk. The unhappy were more likely to be women, teenagers, elderly, widowed, divorced and separated, low income, and inactive. Interestingly, male homemakers constitute a small, happy group.

As well as these needs which fit into our traditional way of looking at things, we are faced with new patterns of psycho-social disruption which are having a major impact on primary care medicine. These patterns include unemployment, with its concomitant anxieties, depressions, and more visible secondary behaviours such as physical and sexual abuse; changes in family roles, with more two-earner families and one of six families being led by single mothers; acceptance of changing sexual norms; and the general disillusionment of adolescents and young adults over threats to our environment and to world peace.

One study (Brown and Harris, 1978) found, for example, that the risk of depression increased in women dealing with severe life events if they were made more vulnerable by such factors as the absence of an intimate confiding relationship with a husband or boyfriend, having three or more children at home, or being unemployed. Even though they were more vulnerable, however, some groups, including the women with children at home, visited their family physician or psychiatrist less frequently.

Current Practice

Among every 1,000 adult patients, we can expect 10,000 new episodes of illnesses of all kinds over the course of one year. At least 80% of these are dealt with through self-care or family care. Fewer than 20% of the patients will approach their physicians or other health professionals (see Figure 1).

These figures are a compilation of English, Australian, American, and Canadian practice patterns which I put together during my sabbatical year in Australia a year and a half ago. Recently acquired figures on practice patterns in Nova Scotia confirm that these general figures are not out-of-line for current practice. It is reasonable to expect that mental illness is also treated outside the health professions, with 80% of instances being handled by self-care, family care, and services offered by other non-health professionals in the community.

It would seem a good idea then to approach the problem of improving mental health services as a general one of having to redistribute health-care problems; those persons for whom we can do something in the health professions should have access to members of the medical profession for their problems, and those who can be treated better or equally well within the community and without professional intervention should receive this service through proper channels of public education and through the development of more coordinated community resources.

In his landmark study of Stirling County, Nova Scotia (1982), however, Leighton indicated that the prevalence of mental illness approached 20% of the population, of whom only a minority managed to reach a designated mental health facility in their particular community. He pointed out that two-thirds of the referrals to the mental health facility were received from local family doctors, and that considerably more mental disorders were being treated directly by family doctors. There remained, however, large numbers of persons diagnosed with specific mental disorders who were not under treatment. He cites a general figure of 8% of the population having untreated mental disabilities.

Goldberg and Huxley (1980) estimated that 25% of persons have mental illness. Of the estimated total pool of persons with psychiatric problems in the community, 92% see their family physician, 56% are identified and treated primarily by the family physician, 6.8% are referred to psychiatrists, and 2.4% are admitted to a psychiatric bed.

This means that 44% of persons with psychiatric disorders in the community are not identified by family physicians (which would match well with the 8% of this group whom Leighton feels are not being treated of the

One Year of Family Practice With 1,000 Patients

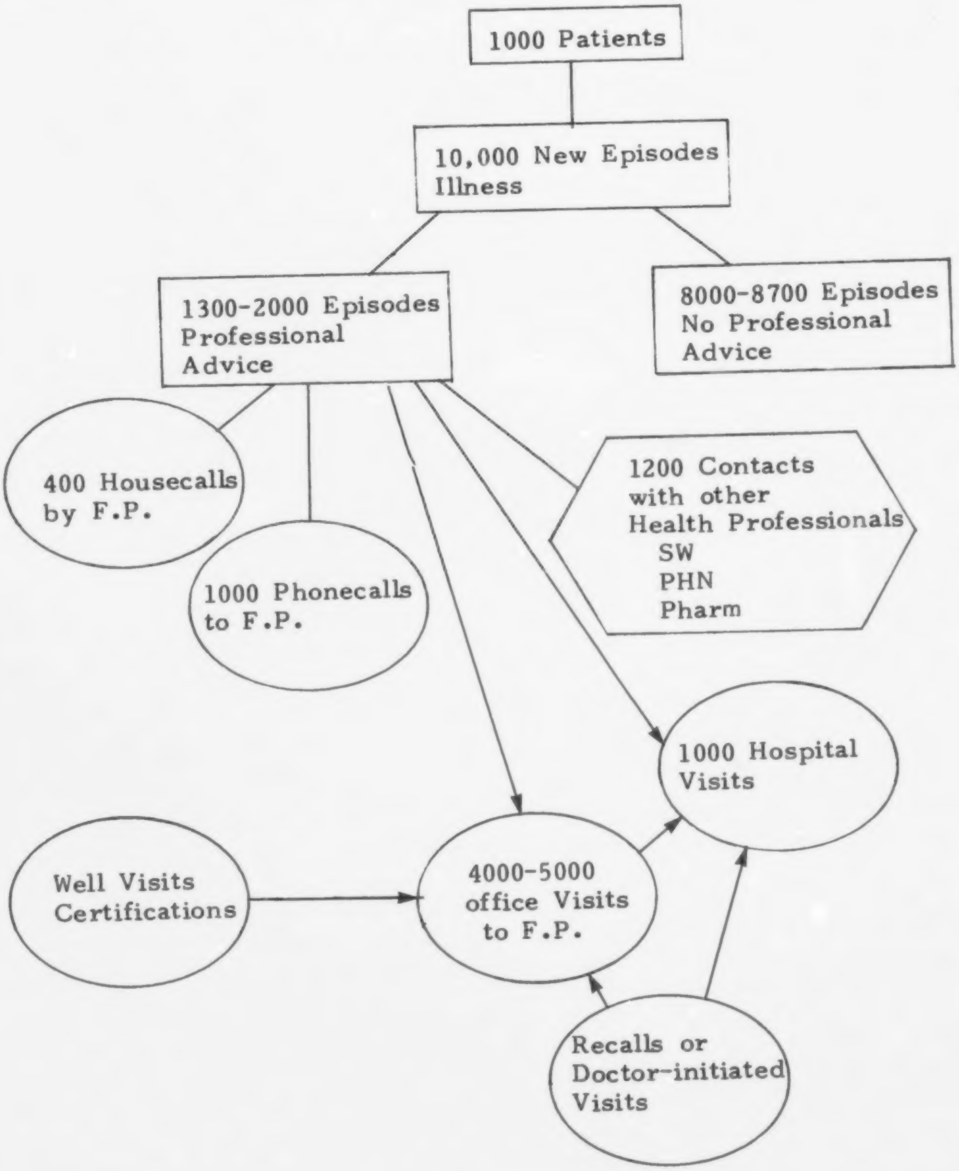
1000 Patients
10,000 New Episodes Illness
1300-2000 Episodes Professional Advice
8000-8700 Episodes No Professional Advice
400 Housecalls by F.P.
1000 Phonecalls to F.P.
1200 Contacts with other Health Professionals
SW
PHN
Pharm
1000 Hospital Visits
Well Visits Certifications
4000-5000 office Visits to F.P.
Recalls or Doctor-initiated Visits

Figure 1. One year of family practice with 1000 patients. (From General Practice in The NewCastle Undergraduate Curriculum" by B.K.E. Hennen, The University of Newcastle, N. S. W. Faculty of Medicine, 1981-1982.)

pool of 20% he has identified). What do we know about why those with psychiatric symptoms do not seek attention, or why those who do seek treatment do not get it directed to their psychiatric problems?

Goldberg and Huxley have addressed these questions in their excellent review "Mental Illness in the Community". I commend it to you for a full reading. The authors discuss the mental health care system as consisting of five levels separated by four "filters". The five levels are identified as follows:

1. the community,
2. primary care in which psychiatric morbidity is present though not necessarily recognized,
3. primary care in which the psychiatric morbidity is recognized,
4. specialist psychiatric services of all types,
5. specialist psychiatric care in hospital.

There are four filters that determine progression of patients through these various levels:

1. The first filter exists between the community and the primary care services; passage through this filter depends essentially on patient factors.
2. Within a primary care service, the identification of mental disorder depends on the family doctor's openness to symptoms exhibited, his or her interviewing techniques, attitudes, and training, and the patient's presentation of his or her problem. Concept such as the patient-centred interview are involved here.
3. The treatment skills of the family doctor, the severity of the illness, and the attitudes of the patient and family determine the likelihood of referral to a psychiatrist, as do the quality and quantity of psychiatric services available.
4. The fourth filter determining admission to a psychiatric bed involves bed availability, the psychiatrist's access to the beds, symptom patterns of patients, attitudes of patients and family (stigma is important here also), and other practical factors such as delay in a physician or social worker arriving at a crisis situation.

An Achievable Ideal

Because there may be a significant pool of treatable mental disorders unidentified in the community, a greater emphasis on the early and accurate identification of problems would seem a priority. Improved screening of subtle dysfunctions and appropriate reporting of more obvious dysfunction require implementation of screening devices and changes in attitudes, particularly with respect to reducing the stigma associated with assessments of mental disorder.

Next, better skills and more knowledge are required by the public and by health professionals so that both make effective use of all community resources.

In one study of randomly selected members of the United Auto Workers (Glasser, Duggan, and Hoffman, 1975), 90% could not name a psychiatrist and 65% could not name a single mental health treatment facility. Even more disturbing, of the 81 referral agencies to whom the workers might have referred themselves, including general practitioners, social workers, clergy, court officials, and police, over one-third of these referral agencies could not name a single psychiatrist to whom they might refer a patient. Although psychiatric treatment, psychological testing, and access to a mental health clinic were available free to UAW members, only one-fifth of the workers and less than one-third of the referral agencies were aware of those benefits. There is much ignorance, it seems, among the public and professionals alike.

For family doctors, in particular, improved awareness of the therapeutic benefits of the doctor/patient relationship and of one's own strengths and limitations in that area is the first step. Secondly, we require a clear definition and learning of psychotherapy skills suitable for primary care. The knowledge base of family physicians needs to emphasize normal human development, family structure and function, illness behaviour, psychosocial aspects of illness, and psychiatric medication. Examples of the emphasis needed for psychotherapy skills have been suggested by Aldrich (1975). He defined psychotherapy for the primary care-provider as being nonjudgemental listening, empathy, and intervention to help the patient solve problems. As well, he outlined some strategies which we would do well to emphasize in the teaching and training of family physicians:

1. positive diagnosis as soon as possible;
2. distinguishing between illness problems and personality problems (primary-care physicians should not be trying to deal with the latter).
3. a goal of restored function as opposed to a goal of cure;
4. clarifying specific treatment goals with the patient;
5. scheduled, timed appointments;
6. privacy.

Problems to Overcome Besides the Deficits in Education

The rather haphazard organization of community resources is one of several problems to be overcome, along with the meagre funding of many community agencies. Most of these organizations are rendered only half as effective as they might be, because their talented staff and board members spend most of their time raising funds and lobbying for survival.

I want to highlight two interprofessional problems that involve the medical profession and to some extent reflect on relationships between the medical profession and other health professions. The problems could be summarized as "serf" and "turf".

The "serf" problem deals with the traditional hierarchy of health professionals; the psychiatrist is seen to be better equipped than the family physician and physicians in general are seen to be better equipped than non-physicians. In his classic treatise, "The Doctor, the Patient and the Illness," Balint (1972) referred to a perpetuation of the teacher/student relationship between specialist and family physician. The psychiatrist is seen as the gold standard for dealing with primary-care problems, as well as for his or her filtered complex psychiatric problems. Similarly, physicians in general set gold standards for aspects of care for which they have little direct responsibility and intend that these standards be followed by other health professionals at a service level.

Related to this hierarchical problem is the problem of territory, with each discipline, both in practice and in academia, protecting its own turf. While there is some debate about who should be doing what, increasing pressures for primary-care nurses, independently functioning psychologists, and private social workers are raising threats of competition to doctors. The disciplines of behavioural science, psychiatry, family medicine, and all of our clinical disciplines strive for pre-eminence in the curricula of medical schools.... And yet we are all too busy.

The solutions are clearly in the direction of team approaches to patient care, whereby leadership of the team is constantly negotiable and depends to a great extent on the one who has most frequent access and best knowledge of the patient or the current situation. Problems of turf can similarly be sorted out by negotiation and by honestly looking at who knows most about a subject and is best equipped, given available resources, to teach it.

Provincial-federal relationships are also full of serf and turf problems.

Priorities

Priorities tend to be implemented according to factors of time (what should be done first?) and according to the degree of effort invested in them (which should get the most attention and greater amount of resources, including money?). Sometimes, however, the most important measures should not be taken first because they depend on other steps having been completed; in other cases, the activity that is most important is not necessarily the most expensive or demanding of the greatest effort.

Canada is generally considered to be an affluent society, yet 4.5 million Canadians are defined as living below the poverty line and 11% of our employable citizens are out of work.

Magee (1978) advises that reducing unhappiness is a more sensible goal than promoting happiness, since we know ways of reducing unhappiness but are not as knowledgeable about how to make people happy. As he said, "instead of the greatest happiness for the greatest number, one should demand, more modestly, the least amount of avoidable suffering for all; and further that unavoidable suffering should be distributed as equally as possible."

Dr. Art Parsons, Chairman of the CMA Committee on Medical Ethics, recently indicated that the most significant ethical problem facing providers of health care in the next decade will be the allocation of scarce resources. It is becoming increasingly apparent that health care resources are not a bottomless pit.

I recently took part in a discussion with representatives of a new directorate in Manpower concerned specifically about the rehabilitation and employment of the mentally disabled and those recently discharged from mental treatment. The discussion included expressions of concern about premature discharge from institutional supportive care, inadequate discharge planning, the stigma of mental illness and its effect on society in general and employers in particular, and the lack of psychiatric advice and appropriate education for employers concerning the rehabilitation of such members of our community.

On the other hand, I have reviewed Kirsh's article (1983) "Unemployment: Its Impact on Body and Soul," published by the Canadian Mental Health Association, and found that it identifies the extent to which unemployment demoralizes, facilitates unhealthy life-styles, and promotes mental illness. Unemployment is associated with increased rates of:

Depression

Self-depreciation

Anger

Child abuse

Mental hospital admission

Property crimes

Children's problems in school

Anxiety

Fatalism

Spouse abuse

Suicide

Homicides and rape

Youth alienation

Divorce

Alcoholism

Fatigue

Ulcers

Hard drug abuse

Caffeine abuse

Rapid breathing

Infant mortality

Poverty-induced consequences (e.g. poor nutrition, inadequate housing, etc.)

Weight loss or obesity

Fainting spells

Tobacco abuse

Insomnia

Muscle tension

Heart disease

Here is a perfect example of the kind of moral dilemma we must face head-on. Should our Manpower Department put its major thrust into employment programs for the fit unemployed in an effort to prevent the onset of mental illness, or should it emphasize the rehabilitation of those who have established mental illness and who are about to re-enter the work force? How do we avoid putting these two groups in competition with one another and creating a situation that would be clearly self-defeating? What emphasis should we, as health professionals, take in this regard? Should we generally, as a group of different disciplines, agree to emphasize prevention, or should we agree that some of us will emphasize prevention, others active treatment, and still others rehabilitation? Should we leave the prevention--that is, unemployment of the healthy--entirely in the hands of Manpower and take on the rehabilitation of the recently mentally disabled for ourselves?

Here I think we should move towards a model which provides a clearer definition of roles but allows a clearly definable overlap. Primary-care nurses, for example, should probably be emphasizing prevention and health education. Psychiatrists, while having a small, mainly advisory role in primary prevention, should have a research capacity, should be emphasizing active treatment as consultant specialists, and should probably have a greater role in rehabilitation than they are currently playing. Family physicians, as generalists, must define their role with vertical limits rather than horizontal ones, maintaining core skills as outlined above, and emphasizing case finding but keeping a foot in all camps.

This arrangement presupposes a continuation of the basic model in Canada of family physicians being the major provider of primary medical care. While alternative pilot or demonstration projects of care should be evaluated within and outside of the community-based family practitioner model, it makes sense to take advantage of this prevalent pattern of public usage as a basis of planning. I am proposing that we prepare family doctors and plan their patterns of practice to meet these changing needs, and build preventive, consultative, and rehabilitative services around that primary care function.

An Approach to Family Physician Involvement

I believe that we need an approach which takes us through the following: the resolution of some important philosophical issues, the establishment of an appropriate basic model of care, a head-on attack on the economics of the health care system, and an educational strategy geared to both the public (including consumers and government) and the providers.

Philosophical Decisions

There are three kinds of philosophical issues I think we must approach in primary care. First are attitudes of assessment that involve making positive diagnoses of mental dysfunction and avoiding mental assessments by elimination of physical problems. Second is the honest and practical acceptance of the "family" in a broadly defined sense as the prime resource with which most problems will be helped. Third is a willingness to direct our efforts out of the institutions and into the community in a cooperative and team-related organization of services.

An Appropriate Model

The model for Canada continues to focus on the family physician as the primary medical provider. The primary-care nurse is also needed to work directly with the family physician, with a significant role in screening, early recognition of symptoms, preventive teaching, and rehabilitation. This means that the family physician must be trained better in prevention, anticipatory guidance, screening, and particularly in early recognition, basic communication skills, supportive psychotherapy, effective use of medication, and efficient and effective referral. Some family physicians with special interests may seek further in-depth training in particular areas such as family therapy, hypnosis, and marital counselling. Community-based nurses and social workers could serve several designated practice needs for home-visiting care, education, special counselling, and referral to other resources in the community.

Economics

The fee-negotiating groups of physicians have increasingly sought better recognition of the value of talking with patients; they see this activity as being on a par with technical procedures, and believe that both talking and preventive activities must be emphasized. Unfortunately, the belief that "talk is cheap" has pervaded the payment system in health care. As a result, good talking skills of professionals are poorly regarded by many physicians, most governments, and some patients, although all patients seem to appreciate doctors who have time to talk with them.

Nova Scotia 1982 Family Physician Services
(population 850,000)

Total Billing	$ 50.6 Million
"Psychotherapy"	1.6 Million (3.2%)
29,351 people received at least one "Psychotherapy" service	
Cost of Psychotherapy:	$1.91 per capita
	$55 per person having at least one service

This gives a perspective of what is billed in Nova Scotia as psychotherapy by family doctors. One wonders whether there is enough psychotherapy being done by family doctors. It is important to define the nature of the psychotherapy being done by family doctors.

Pressure must be continued to encourage government to acknowledge more clearly the roles of other primary health professions in the provision of primary care. Particular note should be made of community health nurses, social workers, and family practice nurses, all of whom could be connected in specific and designated administrative ways to family practices.

Funding must be directed to the home and community, to those trained in non-technical skills, and to those involved in prevention.

Education of the Public

Since over 80% of the perceived illnesses in a population will be looked after without professional advice, education of the public is an essential first step. Clearly there are patients in the larger group that would benefit from health professional treatment and there are patients seeing health professionals whose problems could be dealt with by self-care, with appropriate advice and education.

Public school family life programs can initiate such education, and they can be supplemented and reinforced in secondary level education and in programs through doctors' offices and departments of public health in the community. In particular, family life education should focus on life-styles, nutrition, normal human development, sexuality, and family and interpersonal relationships. The recent Canada Health Knowledge Survey has indicated that Canadian school children have significant deficits in their understanding of their personal health. Finally, public education needs to emphasize that health-care resources are limited and must be used with care and responsibility.

Professional Education

The education of health professionals will be influenced in the immediate future by changes of quantity as well as quality. There is a general perception that there are too many doctors being produced, although there are few attempts to identify perceived expectations by society of physicians in the future. A 1980 Nova Scotia study, for example, used three different recommendations for doctor-to-patient ratios and concluded that we had a surplus of 58%, a surplus of 21%, or a deficit of 7.2%. No attempts are being seriously undertaken to predict what family doctors will be doing, yet one change in services provided by them can have extensive implications in the numbers of doctors required. To demonstrate this, if adults in Nova Scotia had a two-yearly checkup taking 20 minutes which focused specifically on screening for high risk conditions, as recommended by the Canadian Task Force on Periodic Health Examination, and these screening assessments were applied to the eligible population in Nova Scotia, the province would require 40 more family doctor equivalents than currently exist to meet that single increase in service.

Of course a significant part of such assessments should be done by other health professionals; the task force intended that 85% of their recommendations should be implemented by non-physicians. But a similar concern of too many health professionals and certified nursing assistants in the nursing field was recently cited by the opposition health critic in our province when he reported that we would have 30% too many doctors, 70% too many nurses, and 120% too many certified nursing assistants by 1990 if the current production of those health professionals continued. These predictions have come about as a result of a royal commission in the province. How that commission arrived at these figures--whether they truly predicted patients' needs or simply projected current practices--we don't yet know. If we make wrong decisions about the numbers of health professionals we accept into training programs, it may take between 3 and 10 years to correct the problem, depending on the length of the training program. We need continuous predictions of future needs to assess manpower requirements, not sporadic, crisis-related attempts.

To make more appropriate, correct decisions, we have to consider how health professionals will be working in the future. This in turn can be reflected, with a predictable but considerable lag time, in the curricula of the health professional schools which are willing to change to meet needs on a rational basis. Across Canada about half of the 16 medical schools are currently going through major curricular revisions.

On the one hand I think we need a clearer definition of roles within a system that will on the other hand depend increasingly on team-work. The clear-role definition, however, should not be formulated in such a way as to separate disciplines but should be done in a fashion that will allow for negotiated, and to a considerable extent, jointly-learned overlapping skills. The amount of overlap and the kinds of professionals will undoubtedly vary with needs primarily determined by demographic and geographic considerations. As well, economic and political controls will have important effects. We must plan for the future, and we cannot do that by simply projecting the present forward.

References

Aldrich, C.K. Office psychotherapy for the primary care physician. Chapter 39. American Handbook of Psychiatry 2. Basic Books Inc., 1975.

Balint, M. The doctor, his patient and the illness. New York: International Universities Press, 1972.

Brown, G.W., and Harris, T. Social origins of depression. London: Tavistock Publications, 1978.

Curry, L., and McIntyre, K.A. The content of family medicine: Do we need more studies? Canadian Family Physician, 1981, 28, 124-126.

Glasser, M.A., Duggan, T.J., and Hoffman, W. Obstacles to utilization of prepaid mental health care. American Journal of Psychiatry, 1975, 132, 710-715.

Goldberg, D., and Huxley, P. Mental illness in the community, The pathway to psychiatric care. London and New York: Tavistock Publications, 1980.

Hennen, B.K.E. General practice in the Newcastle undergraduate curriculum, The University of Newcastle, N.S.W. Faculty of Medicine, 1981-82.

Kirsh, S. Unemployment: Its impact on body and soul. Canadian Mental Health Association, 1983.

Leighton, A.H. Caring for mentally ill people. Cambridge University Press, 1982.

Leighton, A.H., Murphy, J.M., and Munro, A. Caring for mentally ill people in Nova Scotia. Accepted for publication in Nova Scotia Medical Bulletin, 1984.

Magee, B. Popper. Fontana Modern Masters. Glasgow: William Collins's Sons and Co. Ltd., 1978, p. 85.

Marsland, D.W., Wood, M., and Mayo, F. Content of family practice. In J.P. Geyman (Ed.). A statewide study in Virginia with its clinical, educational, and research inplications. New York: Appleton-Century Crofts.

1982 Statistics Halifax, Nova Scotia Medical Services Insurance.

THEME II. RESEARCH AND PRIORITIES FOR SERVICE: APPLICATIONS TO SPECIFIC POPULATIONS

ALCOHOL PROBLEMS: IMPLICATIONS OF RESEARCH FOR PRIORITY-SETTING AND PROGRAM DEVELOPMENT

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ABSTRACT

The paper presents a synopsis of key research findings related to the prevention and treatment of alcohol problems. A basic strategy for primary prevention is proposed that emphasizes coordinated efforts by government, professionals, and community agencies. Recent findings have underscored the value of brief interventions with individuals at early stages of problem drinking. More intensive and specialized treatment services are required for those with major symptoms of alcohol dependence.

Alcohol abuse and the disabilities related to it create pervasive medical, social, and psychological problems. The costs associated with alcohol misuse are staggering. Estimates from Canada and the United States indicate that 11% to 12% of adult health-care costs are due to alcohol-related problems. However, these estimates appear small when compared with the nonmedical costs of excessive drinking such as those due to crime, lack of productivity, and road traffic accidents. The diverse impact of alcoholism on society has led to considerable debate over the "ownership" of alcohol problems. The medical profession must accept some responsibility for confronting alcoholism, but the implementation of controls to restrict alcohol consumption depends largely on political decisions.

Primary Prevention

Alcohol consumption does not harm most people. Approximately 75% of Canadians are "sensible" consumers of alcoholic beverages. These individuals are the target audience for primary prevention. The goal is to encourage individuals to drink at moderate levels, and to educate our youth about sensible drinking habits. Table 1 summarizes research on the impact of primary prevention programs using the mass media, education in schools, and control-regulatory mechanisms. Individual changes in alcohol policy, education, and mass media may have little discernible effect; however, cumulatively they may significantly alter alcohol consumption. Thus, the impact of the total "package" in primary prevention is probably more important than any single element. Table 2 outlines a basic strategy for preventing alcohol abuse that emphasizes the coordination of multiple efforts.

TABLE 1

Research Update

Primary Prevention

1) Mass Media: The impact is poorly understood and the problems of conducting sound research are formidable. Health-oriented alcohol education appears to influence public awareness and attitudes. However, no lasting behavioural impact has been demonstrated. Advertising can influence brand recognition and preference, as well as create favourable impressions toward drinking. However, whether advertising influences actual consumption patterns is a very controversial issue.

2) Education: Although alcohol education in schools can increase knowledge levels, the relationship between increased knowledge and behaviour change is unclear. There is no solid evidence to indicate that school alcohol education reliably influences drinking behavior.

3) Control-Regulatory Mechanisms: The basic findings are:

   a) measures that reduce alcohol availability will be associated with reduced alcohol consumption.

      i) Price - higher relative price for alcohol is associated with lower consumption.

      ii) Age - reduction in legal drinking age is associated with an increase in consumption.

      iii) Outlets - a marked change in outlet frequency is associated with a corresponding change in consumption.

   b) measures that significantly reduce alcohol consumption will be associated with a lower prevalence of alcohol problems.

Conclusion

Individual changes in alcohol policy, education, and mass media may have little discernible effect, but cumulatively they may significantly hasten changes in alcohol consumption. Thus, the impact of the total "package" is probably more important than any single item.

TABLE 2

Basic Strategy for Preventing Alcohol Abuse

1. Control the Availability of Alcohol
    - Price of alcohol relative to disposable income
    - Legal drinking age
    - Number and type of outlets

2. Restrict Lifestyle Advertising of Alcohol

3. Focus Prevention Programs on Specific Contexts
    - Health - pregnant women
    - Family - children of alcoholics
    - Traffic - legislation on drinking and driving

4. Increase Public Awareness
    - Emphasize benefits of healthy lifestyles, as well as the consequences of excessive drinking

5. Co-ordinate Efforts to Achieve a Cumulative Impact
    - Mass Media - to increase public knowledge and awareness
    - Group Methods - to raise motivation and concern
    - Individual Contact - to produce behavioural change

Treatment Research

Approximately 5% of the male population in North America meet criteria for alcohol dependence, indicated by symptoms of alcohol withdrawal and impaired control over drinking. These individuals are commonly referred to as "alcoholics". However, many other individuals have "drinking problems" without symptoms of alcohol dependence. The prevalence of problem drinkers has been estimated at between 15% and 35% of the adult male population. Table 3 provides a summary of the treatment research literature, and Table 4 describes the elements of an early intervention program.

TABLE 3

Treatment Research Summary

	FINDINGS	INDICATED ACTION
1.	Many problem drinkers never seek treatment	Use screening techniques in various settings
2.	Socially stable individuals at early stages of problem drinking have better prognosis	Emphasize early detection and prompt intervention
3.	Severity of alcohol dependence is a key variable for deciding between abstinence versus moderation drinking goals	Assess the degree of alcohol dependence
4.	Intensive treatments generally are no more effective than brief interventions	Emphasize brief intervention, use long-term treatments selectively

TABLE 4

Basic Strategy for Early Intervention

1. Emphasize Early Identification
   - Socially stable individuals at earlier stages of problem drinking have a better prognosis
2. Conduct a Systematic Assessment
   - Patterns of alcohol and drug use
   - Degree of alcohol dependence
   - Medical status and psychosocial functioning
3. Engage in a Single Counselling Session
   - Review assessment findings with patient and family
   - Present evidence of physical damage related to drinking (e.g. raised GGT, MCV)
   - Set drinking goals (abstinence or moderation)
   - Set goals in other key areas
   - Emphasize responsibility of the patient and family for working on goals
   - Refer (if needed) to other agencies/professionals
4. Provide Self-Help Manuals
5. Conduct Periodic Follow-Up
   - Have patient keep a daily drinking log
   - Monitor physical indicators of heavy drinking (e.g. GGT)
   - Review progress on goal attainment

Source: Skinner, H.A. & Holt, S. Early intervention for alcohol problems. Journal of the Royal College of General Practitioners, 1983, 33, 787-791.

It has become increasingly clear that brief interventions may be just as effective as intensive, long-term treatments. Moreover, socially stable individuals at earlier stages of problem drinking have a much better prognosis regardless of the specific intervention applied. Thus, increasing attention has been given to the early identification and treatment of problem drinkers. Moreover, the severity of alcohol dependence has emerged as a key variable for deciding between abstinence and moderation drinking goals. Individuals with a more severe degree of alcohol dependence are more likely to be successful following a total abstinence goal. On the other hand, problem drinkers with no or minimal symptoms of alcohol dependence have achieved good results with moderation drinking goals. Thus, a systematic assessment of the individual's drinking status is vital for the planning of effective treatment strategies.

Defining Alcohol Problems

A multidimensional framework is presented in Table 5 as a basis for understanding what variables should be assessed in defining the many "faces" of alcoholism. Although the three dimensions are related, they are conceptually distinct and may not be present simultaneously or to the same degree.

TABLE 5

Framework for Assessing Alcohol Problems

Dimension	Status
I. Drinking History	
. Frequency of drinking . Quantity consumed . Drinking style (continuous vs. binge) . Time of day drinking occurs . Drinking situation . Antecedents to drinking	0=abstinent/light drinking (0 - 1 drink/day) 1=medium drinking (2 - 3 drinks/day) 2=hazardous drinking (4 - 6 drinks/day) 3=harmful drinking (7 or more drinks/day)
II. Dependence Syndrome	
. Impaired control over drinking . Increased tolerance . Withdrawal symptoms . Compulsive drinking style . Drinking to relieve withdrawal symptoms	0=no symptoms 1=mild symptoms 2=moderate symptoms 3=severe symptoms
III. Disabilities Related to Drinking	
. Biomedical e.g. Traumatic injury Liver disease Hypertension Pancreatitis Gastrointestinal symptoms	0=no problems 1=mild problems 2=moderate problems 3=severe problems
. Psychosocial e.g. Absenteeism at work Poor work performance Family problems Anxiety/depression Intellectual impairment Legal problems	

Source: Skinner, H.A. Assessing alcohol use by patients in treatment. In R.G. Smart et al. (eds.), Research Advances on Alcohol and Drug Problems, Vol. 8. New York: Plenum, 1984.

The first dimension concerns the individual's drinking behaviour. Key variables include the frequency of drinking, quantity consumed per drinking occasion, variability in consumption (minimum and maximum amounts consumed), types of beverages, time of day when alcohol is consumed, and situations where alcohol is consumed. With these data, one may calculate various indices for a given time period, such as the number of abstinent days, light or moderate drinking days (less than 60 grams absolute alcohol), and heavy drinking days (greater than 60 grams absolute alcohol). Also, these data allow one to document antecedent situations where an individual tended to drink excessively and then experienced consequences such as absenteeism from work.

The second dimension refers to the alcohol dependence syndrome which is marked by an impaired control over alcohol intake. Other important aspects include: increased tolerance to alcohol, severe withdrawal symptoms following cessation of drinking, and a compulsive drinking style. The alcohol dependence syndrome is viewed as existing along a continuum of severity. Estimates suggest that around 5% to 7% of the male population in North America may meet criteria for alcohol dependence, indicated by symptoms of alcohol withdrawal and impaired control over drinking.

The third dimension concerns various biomedical and psychosocial disorders that are associated with excessive drinking, such as legal problems with drinking and driving. The prevalence of nondependent alcohol abuse has been estimated between 15% and 35% of the adult male population. Problem drinking tends to be more prevalent among young males where alcohol-related disabilities (e.g., accidental injury) are often linked to acute episodes of intoxication.

In review, the three-dimensional framework provides a comprehensive basis for evaluating the nature and severity of an individual's alcohol problems. An individual with a chronic history of alcohol misuse would be characterized by a severe rating under each dimension. That is, the individual would likely have a long history of drinking hazardous amounts of alcohol (e.g., greater than 60 grams ethanol per day), would experience severe symptoms of alcohol dependence, and would have accrued a variety of medical complications and psychosocial problems related to drinking. On the other hand, an early stage problem drinker may be characterized by consumption of alcohol at an excessive level on certain occasions, would have minimal or no symptoms of alcohol dependence, and may not exhibit medical or psychosocial problems related to drinking other than a drinking-driving offence. Thus, the framework in Table 5 can serve as a diagnostic "shorthand" (1) for summarizing an individual's status regarding alcohol problems, as well as (2) for providing a basis for the planning of effective treatment services.

Conclusion

This paper has given a synopsis of key research findings in the prevention and treatment of alcohol problems. A basic strategy for primary prevention is proposed that emphasizes coordinated efforts by government ministries, professionals, and community agencies. With respect to treatment, recent findings have underscored the value of brief interventions with individuals at early stages of problem drinking. Family physicians, nurses, and social service professionals are in a good position to identify those individuals who are drinking excessively, but have not accrued major symptoms of alcohol dependence. Brief intervention programs by professionals in their generalist roles can be highly cost effective in dealing with the 20%, or so, of Canadians who are early-stage problem drinkers. At the same time, each community requires access to more intensive and specialized treatment services for "alcoholic" individuals (5%-7% of Canadians) with major symptoms of alcohol dependence. The real challenge in curtailing the prevalence of alcohol problems is to provide sustained and coordinated efforts directed at the three different populations: (1) normal drinkers, (2) early-stage problem drinkers, and (3) alcoholics.

References

General

Alcohol and Alcoholism. Report of a Special Committee of the Royal College of Psychiatrists. London: Tavistock Publications, 1979.

Holt, S., and Skinner, H.A. Confronting alcoholism. Canadian Medical Association Journal, 1982, 126, 351-352.

Kendall, R.E. Alcoholism: A medical or a political problem. British Medical Journal, 1979, 1, 367-371.

Nobel, E.P. (Ed.). Third Special Report to the U.S. Congress on Alcohol and Health. National Institute on Alcohol Abuse and Alcoholism, Rockville, M.D., 1978.

Statistical Supplement to the Annual Report 1979-80, Addiction Research Foundation of Ontario. Toronto, 1981.

The Pattern and Range of Services for Problem Drinkers. Report by the Advisory Committee on Alcoholism, Professor W.I.N. Kessel (Chairman). Department of Health and Social Security. London, England, 1978.

Costs Related to Alcohol Abuse

Luce, B.R., and Schweitzer, S.O. Smoking and alcohol abuse: A comparison of their economic consequences. New England Journal of Medicine, 1978, 298, 569-571.

Ouellet, B.L., Romeder, J.M., and Lance, J.M. Premature mortality attributable to smoking and hazardous drinking in Canada. American Journal of Epidemiology, 1979, 109, 451-463.

Schmidt, W., and Popham, R.E. Heavy alcohol consumption and physical health problems: A review of the epidemiological evidence. *Drug and Alcohol Dependence*, 1975/76, *1*, 27-50.

Primary Prevention

Alcohol: Public Education and Social Policy. A.R.F. Task Force Report, H.J. Schankula (Chairman). Toronto: Addiction Research Foundation, 1981.

Moser, J. *Prevention of alcohol-related problems*. Toronto: Addiction Research Foundation, 1980.

Schmidt, W., and Popham, R.E. *Alcohol problems and their prevention: A public health perspective*. Toronto: Addiction Research Foundation, 1980.

Vingilis, E., and Smart, R.G. Effects of raising the legal drinking age in Ontario. *British Journal of Addiction*, 1981, *76*, 415-424.

Early Identification and Brief Intervention

Holt, S., Skinner, H.A., and Israel, Y. Early identification of alcohol abuse: 2. Clinical and laboratory indicators. *Canadian Medical Association Journal*, 1981, *124*, 1279-1295.

Skinner, H.A., and Holt, S. Early intervention for alcohol problems. *Journal of the Royal College of General Practitioners*, 1983, *33*, 787-791.

Skinner, H.A., Holt, S., and Israel, Y. Early identification of alcohol abuse: 1. Critical issues and psychosocial indicators for a composite index. *Canadian Medical Association Journal*, 1981, *124*, 1141-1152.

Treatment Research

Edwards, G., et al. Alcoholism: A controlled trial of "treatment" and "advice." *Journal of Studies on Alcohol*, 1977, *38*, 1004-1031.

Miller, W.R., and Hester, R.K. Treating the problem drinker: Modern approaches. In W.R. Miller (Ed.), *The addictive behaviors*. Oxford: Pergamon Press, 1980.

Ogborne, A.C. Patient characteristics as predictors of treatment outcomes for alcohol and drug abusers. In Y. Israel et al. (Eds.), *Research advances in alcohol and drug problems*, Vol. 4, New York: Plenum, 1978.

Sanchez-Craig, M., Annis, H.M., Burnet, A.R., and MacDonald, K.R. Random assignment to abstinence and controlled drinking: Evaluation of a cognitive-behavioral program for problem drinkers. Journal of Consulting and Clinical Psychology, 1984, 52, 390-403.

Polich, J.M., Armor, D.J., and Braiker, H.B. The Course of Alcoholism: Four Years After Treatment. New York: Wiley, 1981.

Assessment of Alcohol Problems

Edwards, G., and Gross, M.M. Alcohol dependence: Provisional description of a clinical syndrome. British Medical Journal, 1976, 1, 1058-1061.

Edwards, G., Gross, M.M., Keller, J., Moser, J., and Room, R. Alcohol-related disabilities. WHO Task Force Report. Offset Publication No. 32, Geneva: World Health Organization, 1977.

Hodgson, R.J. The alcohol dependence syndrome: A step in the wrong direction? British Journal of Addiction, 1980, 75, 255-263.

Skinner, H.A. Assessing alcohol use by patients in treatment. In R.G. Smart et al. (Eds.), Research advances in alcohol and drug problems, Vol. 8. New York: Plenum, 1984.

Skinner, H.A., and Allen, B.A. Alcohol dependence syndrome: Measurement and validation. Journal of Abnormal Psychology, 1982, 91, 199-209.

A COMPARISON OF SYSTEMS OF CARE FOR LONG-TERM PSYCHOTIC PATIENTS

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ABSTRACT

In selected locations in four Canadian provinces follow-up interviews were undertaken with 182 schizophrenic patients. Information was obtained on a range of demographic and socio-economic attributes, including current living conditons, and on patient functional status and well-being.

Inter-systemic and gender differences were observed which indicated more favourable outcomes and living conditions for female patients, for patients having better access to transportation and community resources and for patients maintaining contact with health care providers, particularly physicians.

In four locations in different provinces of Canada, which included two western provinces, a central and an eastern province, a follow-up study of 182 schizophrenic patients was an interprovincial study, carried out with the support of senior provincial officials across the country. Because of this, it was possible for a federal public servant to work with the provinces, to go into various provincial facilities and to have an extraordinarily high degree of collaboration and cooperation with people in the field in the four provinces concerned. The provinces also largely carried the costs of the fieldwork. Federal functions lay in coordinating the whole project, analysing the data and putting the results together, all with much valuable assistance from people across the country. It has been an example of federal/provincial cooperation which has been quite extraordinary and unique, and the author is most grateful to the provinces involved.

Thanks and acknowledgement are also due to many individuals across the country, of a number too lengthy to list. Of particular note were, the wise counsel and guidance of Dr. Henry Kedward of the Clarke Institute, the extensive work, the support and advice of Dr. John Clayton, Consultant in Psychiatry to the Mental Health Division, the valuable help, stimulation and creative ideas of Dr. Roger Bland, Chairman of the Symposium and Director of Clinical Services in the Province of Alberta, the assistance and support of Dr. Colin Lipscomb, Regional Director of Psychiatric Services in Saskatoon, of people in universities and treatment facilities across the country, to the people who undertook the fieldwork and also many others who gave advice and help, and enabled and facilitated this investigation to go ahead. To all of them most sincere thanks are due.

Table 1

A Group of 182 Schizophrenic Patients
Described on Follow-up with Respect to:

Table 1 gives the basic outline of the project. We obtained a group of 182 patients to whom we gave follow-up interviews and gathered the groups of information shown in these three columns. Demographic aspects such as marital status, income level and so on, are in the first column and characteristics of the systems of care are in the second column. Because Canada has such a diversity of programs of care, interest lay in looking at differences between the systems of care in the four provinces. Canada is a rich country in that respect and provides a natural experimental situation for comparisons of programs of treatment, support and care accorded to patients. The third column shows the outcome measures obtained at time of follow-up interview.

Figure 1

Models of Care

Dr. Clayton drew this little sketch showing what we roughly thought of as two opposite ends of a continuum, the rather traditional model of care with the large hospital with its out-patient/emergency unit, as opposed to a downtown office building with a mental health centre located on one floor. We were of course aware that systems do not always break into such neat representations.

Table 2

Options for On-going Support and Care

We were interested in various options for care and one of these is the question of professional deployment. Who sees the patients? Who sees them at various points of assessment and treatment? Who sees them at follow-up? Who is the person maintaining their ongoing support and care in the community? You can have various alternatives as shown on Table 2 - the psychiatrist alone, the family doctor, a multi-disciplinary team, and again you have different professional groups such as nurses, social workers, psychologists and occupational therapists, giving a wide variety of professional deployment patterns. Looking at it in another way, there are various options for community maintenance: the patient may continue in contact with the original treatment unit; he may be referred to a community health facility; he may be referred to social services. Also, there may be none at all, or little attempt to follow the patient after his episode of acute care.

Figure 2

Distribution of Discharges, Selected Diagnoses, Canada, 1978

Figure 2 is constructed from Statistics Canada data. It shows the distribution of discharges by selected diagnosis in Canada and it is part of the reason we undertook the study with this particular patient group. We went to the group of schizophrenic patients because, evidently, this group, shown as number 2, is a very large slice of the pie. It should be noted that this figure is based on official discharge diagnoses. These diagnoses, on which the Statistics Canada data are based, were probably not always consistent with the most recent diagnostic categorizations as embodied in DSM III, but they do indicate the relative burden on the health care system in the country which is represented by the schizophrenic patient group.

Figure 3

Percentage Distribution of Discharges,
Selected Diagnoses, Public Mental Hospitals and
Psychiatric Units of General Hospitals, Canada, 1978

Figure 3 is also based on Statistics Canada data and the interest here lies in the group of schizophrenic patients, again group number 2, distributed between the public mental hospitals (in Statistics Canada phraseology) in the open block, and psychiatric units in general hospitals in the shaded block. If you compare that with group number 5, the neuroses, you will see that the schizophrenics are much more likely to be treated in psychiatric hospitals than in general hospitals, whereas with the neurotic group of patients it is the reverse. These figures represent major reasons we looked at the schizophrenic patient group.

TABLE 1

**A Group of 182 Schizophrenic Patients Described
On Follow Up With Respect to:**

Sex

Marital Status

Income Level

Accommodation

Referral

Assessment-Diagnosis

Therapeutic Modalities

Professionals Engaged

Medication

Hospital Bed Days

Rehabilitation

Habitual Activities

Work Competence

Personal Care

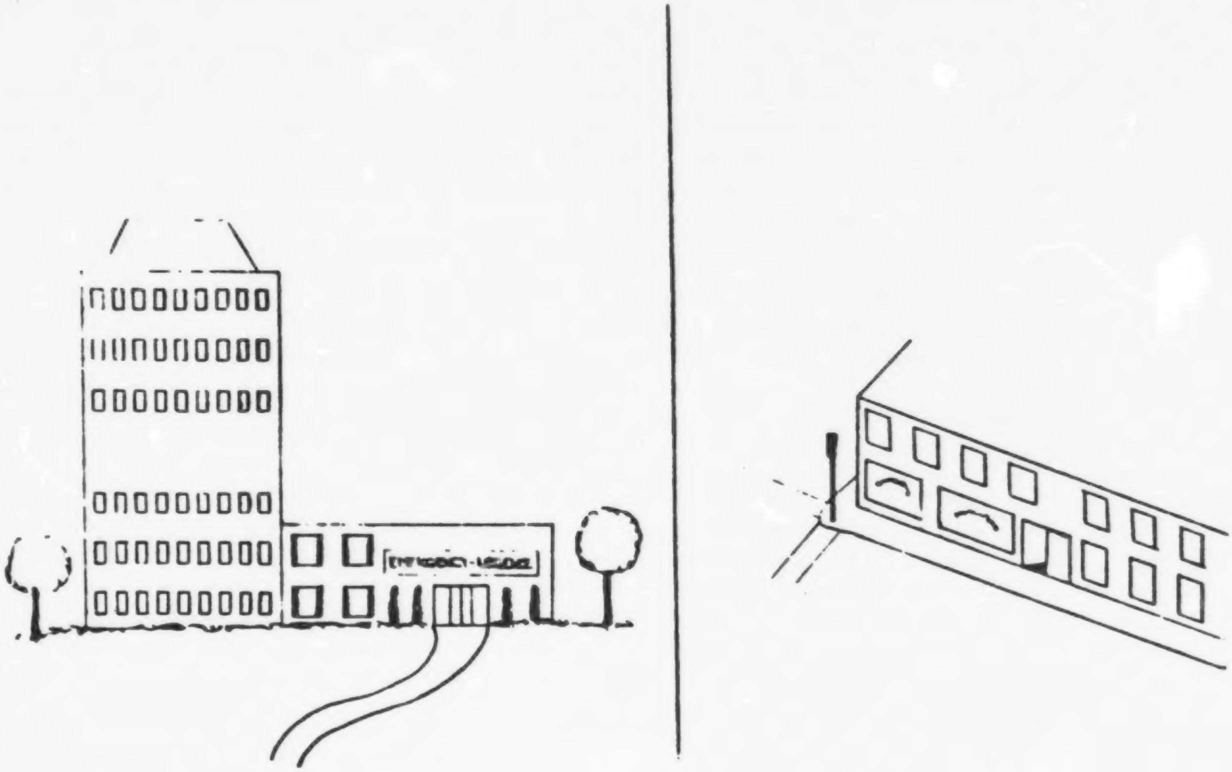
Independence

Sociability

Residual Symptoms

Satisfaction with Care

FIGURE 1



MODELS OF CARE

TABLE 2

Options for On-Going Support and Care

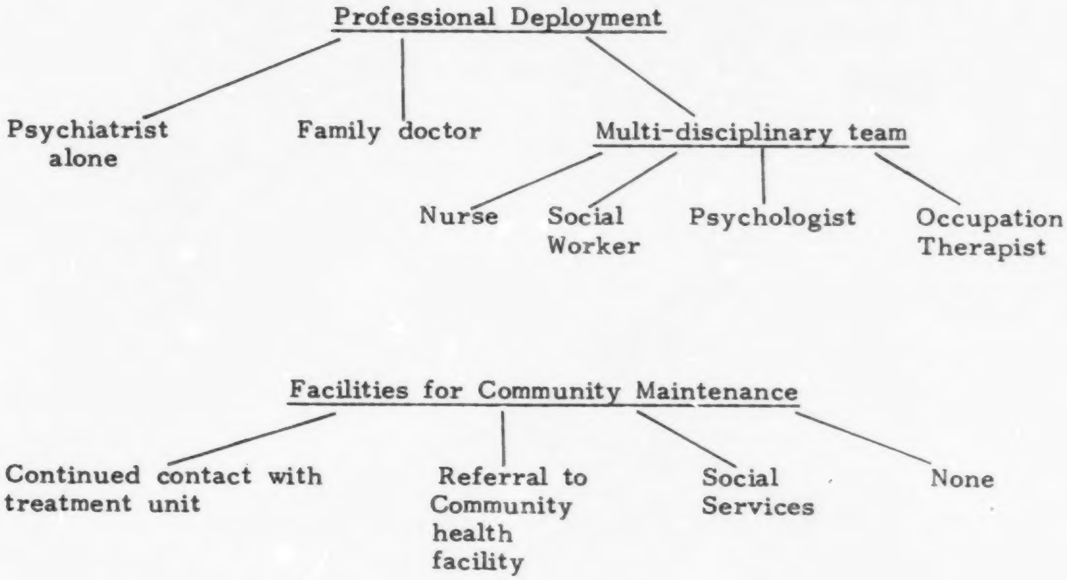
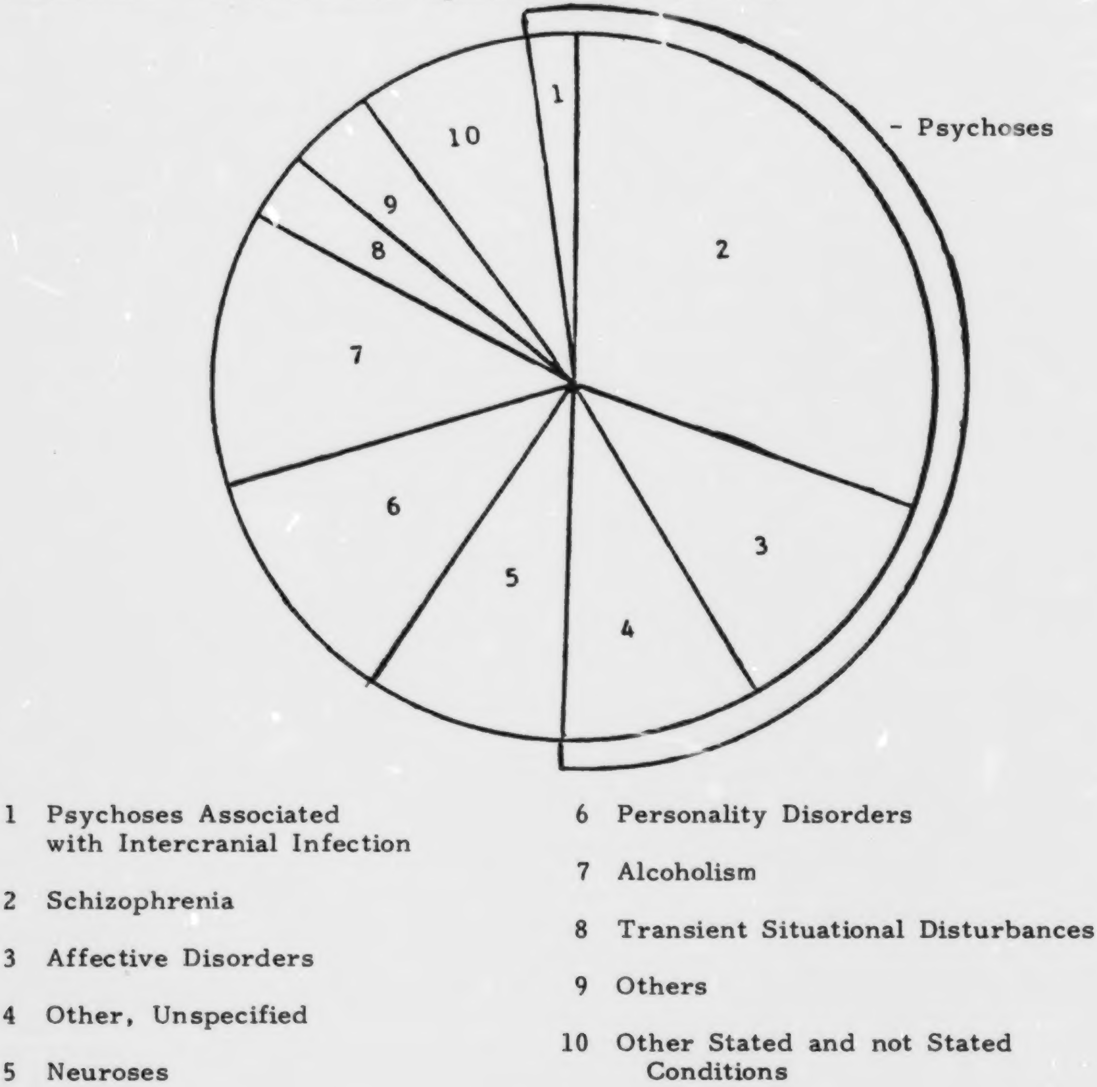

Professional Deployment
Psychiatrist alone
Family doctor
Multi-disciplinary team
Nurse
Social Worker
Psychologist
Occupation Therapist
Facilities for Community Maintenance
Continued contact with treatment unit
Referral to Community health facility
Social Services
None

FIGURE 2

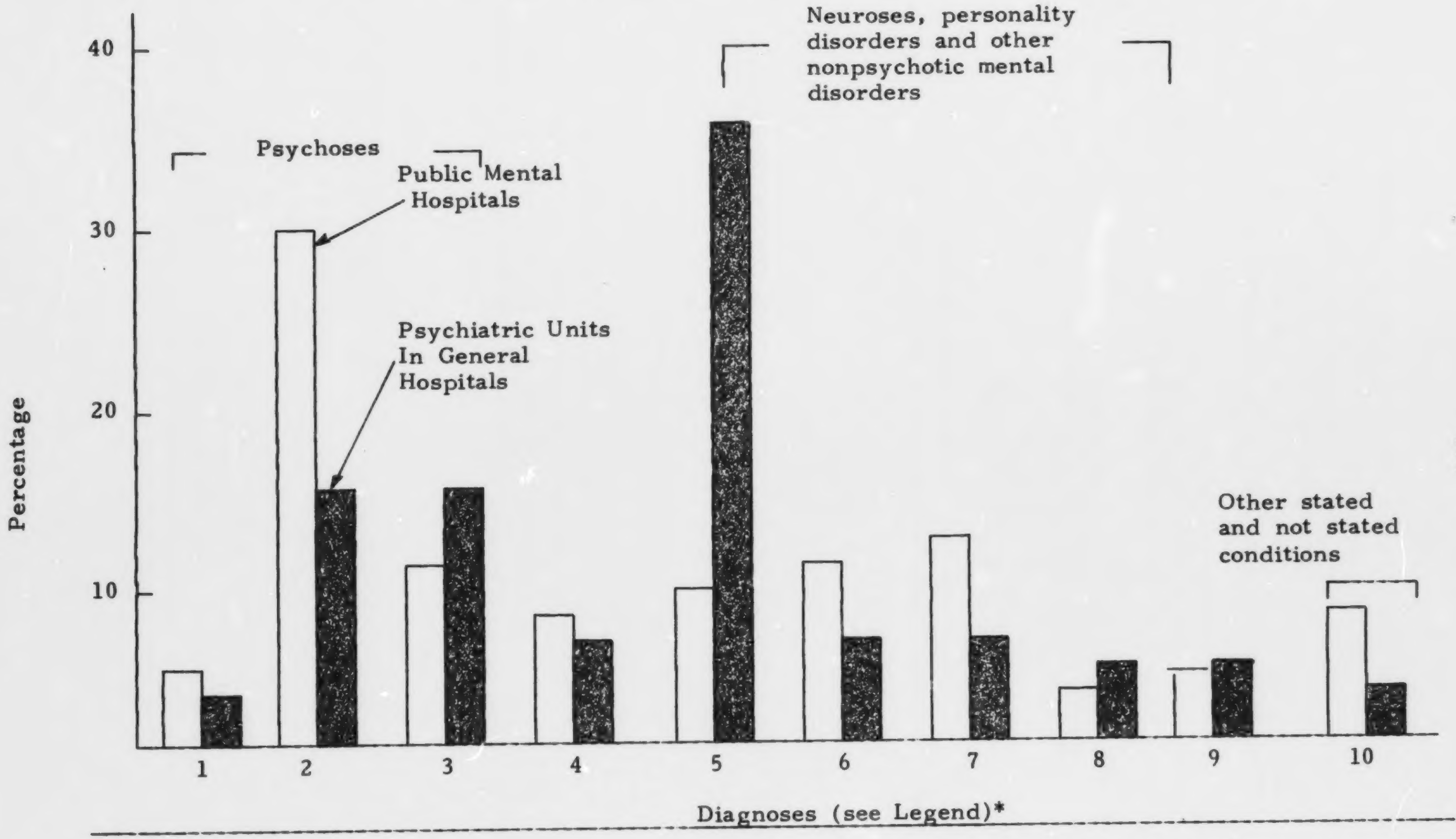
Distribution of Discharges, Selected Diagnoses, Canada 1978



Public Mental Hospitals
In: Statistics Canada Mental Health Statistics, Vol. 1, Institutional Admissions and Separations, 1978 (82-204)

FIGURE 3

Percentage Distribution of Discharges, Selected Diagnosis, Public Mental Hospital and Psychiatric Units of General Hospitals, Canada, 1978.



* Legend
1. Psychoses associated with intercranial infection and with other cerebral and physical conditions
2. Schizophrenia
3. Affective psychoses
4. Other and unspecified
5. Neuroses
6. Personality Disorders
7. Alcoholism
8. Transient situational disturbances
9. Others

The initial subject selection was of a group of diagnosed schizophrenic patients which were obtained from medical records in each of the four locations involved. They were also patients between the ages of 18 and 62 who were initially seen, not less than 18 months, and not more than 10 years, before evaluation. We then applied retrospectively to this group the research diagnostic criteria shown as Appendix A. This procedure was necessary to ensure that the four subject samples were pathologically comparable. We then looked at socially engendered interventions, by which we meant health care interventions, social service interventions and ongoing maintenance in community. We looked at the current wellbeing of the patient group at the time of follow-up, their living conditions and circumstances, and, finally, we judged how well they were doing by applying functional outcome measures, measures which we tried to make as concrete, easily observable, non-arguable and non-judgemental as possible.

In our field interviews, we were most fortunate. We had a group which included psychiatric nurses, social workers and a dietician who carried out an excellent quality of careful, conscientious fieldwork in obtaining the basic data of the study. These data, in three groups, are shown in Table 3.

Table 3

Information Gathered on Components of Treatment and Care

The first group of data comprises those related to contact with the system, the referral source, professionals involved in assessment-diagnosis, at point of entry into the system.

The second group of components were those relating to the acute care phase. These included mode of therapy, (psychotherapy, chemotherapy, ECT, etc.), professional designation of primary therapist, nature of treatment setting and length of time in hospital, by episodes and by total history of care. The information gathered on components of rehabilitation consisted of information as to rehabilitation planning, (e.g. which professionals were involved), whether or not vocational assistance was made available to the patient, and of what type, current contact agency at time of follow-up, current professionals in regular contact with the patient and current levels of neuroleptic medication.

The relative contribution of various mental health professionals to assessment-diagnosis, as recorded in patient charts, is shown in Figure 4. Clearly the psychiatrist, by definition of the patient group as a group having received psychiatric diagnosis, was the major professional involved in assessment diagnosis. The interest of the data lies in the differential proportions of the non-medical professions, where nurses are in the majority followed by social workers, and in which psychologists are shown to have played a very minor part in assessment-diagnostic procedures. This is all the more surprising as psychologists might be expected to function in a psychometric role and would invariably leave a written record of psychometric procedures.

Figure 4

Relative Contributions of Professionals to Assessment-Diagnosis.

Figure 5, the next figure, shows relative proportions of professionals designated primary therapist.

TABLE 3

Information gathered on components of treatment and care

First contacts with system

Referral Source
Professionals involved in assessment-diagnosis
Length of time since diagnosis

Information gathered on components of treatment and care

Acute care phase(s)

Mode of Therapy
Primary Therapist
Treatment Setting
Time in Hospital

Information gathered on components of treatment of care

Rehabilitation

Rehabilitation planning
Vocational assistance
Current contact agency
Current contact professional
Current medication levels

FIGURE 4

Relative Contribution of Professionals to Assessment/Diagnosis

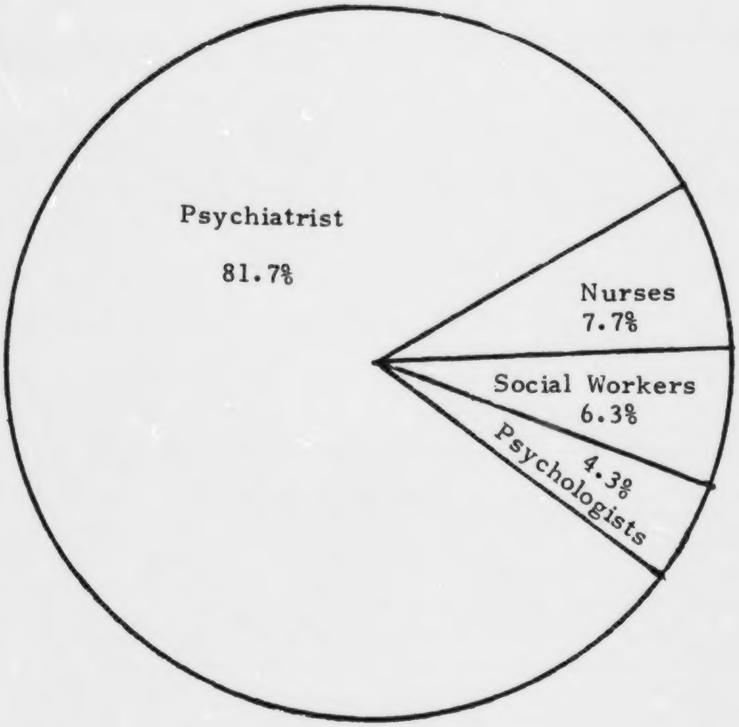


FIGURE 5

Relative Proportions of Professsionals Designated Primary Therapist

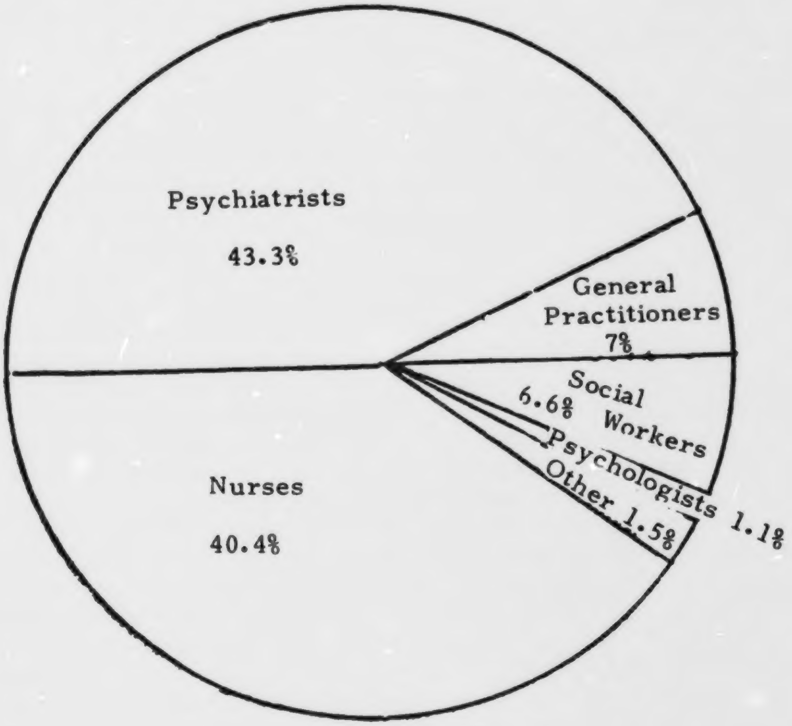


Figure 5

Relative Proportions of Professionals
Designated Primary Therapists

Here again we find that nurses are in the majority among non-psychiatrists, while general practitioners also play a role of some significance. Once again, psychologists form a very small proportion of designated professionals. The category "other" includes, for example, occupational therapists and vocational counsellors.

These data are derived from chart information going back over episodes of care to a maximum of 3 episodes.

Figure 6 shows the proportion of professionals found to be maintaining regular contact with patients at time of follow-up. These data are of particular interest as factors relating to maintenance in community were shown to be critical to the current well-being and outcomes of the patient group.

Figure 6

Relative Proportions of Professionals
Maintaining Contact in Community

In this case two tabulations were possible, as the desire was to show proportionate deployment of the professionals. Thus, a patient was frequently seen, for example, by a nurse on regular weekly contact and by a psychiatrist at less frequent but regular contact, perhaps every third month. Here we see a repetition of the same picture which has emerged in the two previous groups of data, that nurses form the majority of non-medical professionals working with the patients and the preponderance of care is being given by psychiatrists, general practitioners and nurses. The role of the general practitioners appears to be a substantial one in maintaining on-going contact and a surprisingly small proportion (2.7%) represents social workers, whom one might have expected to figure more largely in providing on-going support for long-term patients in community. Psychologists, as in other stages of treatment and care, appear to make little input into work with this particular patient group.

An important group of study data related to gender differences. Table 4 shows ages and sex of patients interviewed.

Table 4

Numbers of Patients Interviewed, Ages 18 to 62, by Age and Sex

The large number of males in the 20-29 year age group will be noted in comparison to a much smaller number of females at the same ages, whereas, as you move up the years to the 50-plus age group, you have a small proportion of males and a large proportion of females. Because this is a

FIGURE 6

Relative Proportions of Professionals Maintaining Contact in Community

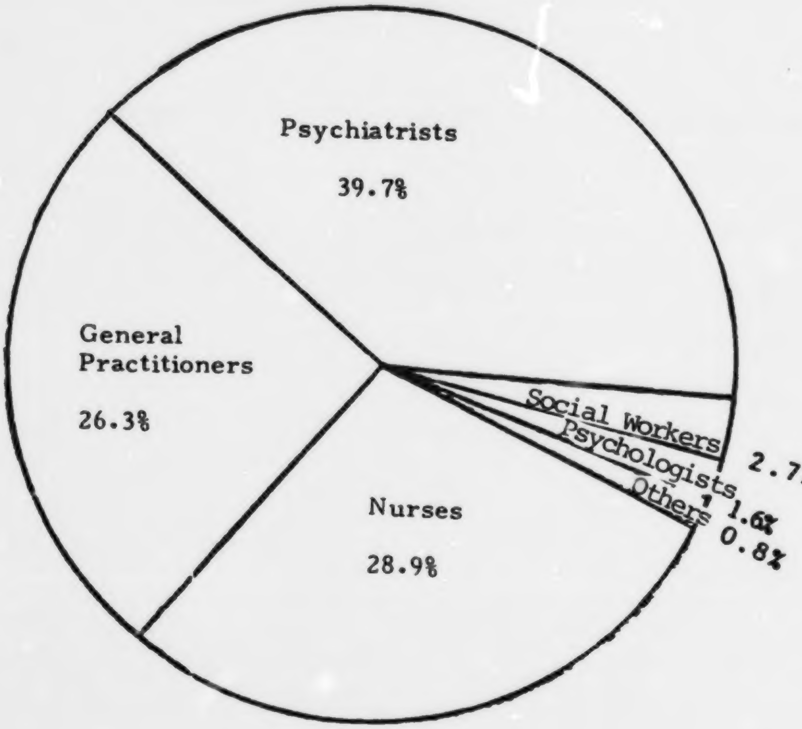


TABLE 4

Numbers of Patients Interviewed, Ages 18 to 62, By Age and Sex

Age Groups	Males	Females	Total
< 20	3	4	7
20-29	$\boxed{56}$	$\boxed{17}$	73
30-39	22	21	43
40-49	20	14	34
50-62	$\boxed{8}$	$\boxed{17}$	25
TOTAL	109	73	182

FIGURE 6

Patients Interviewed by Age and Sex

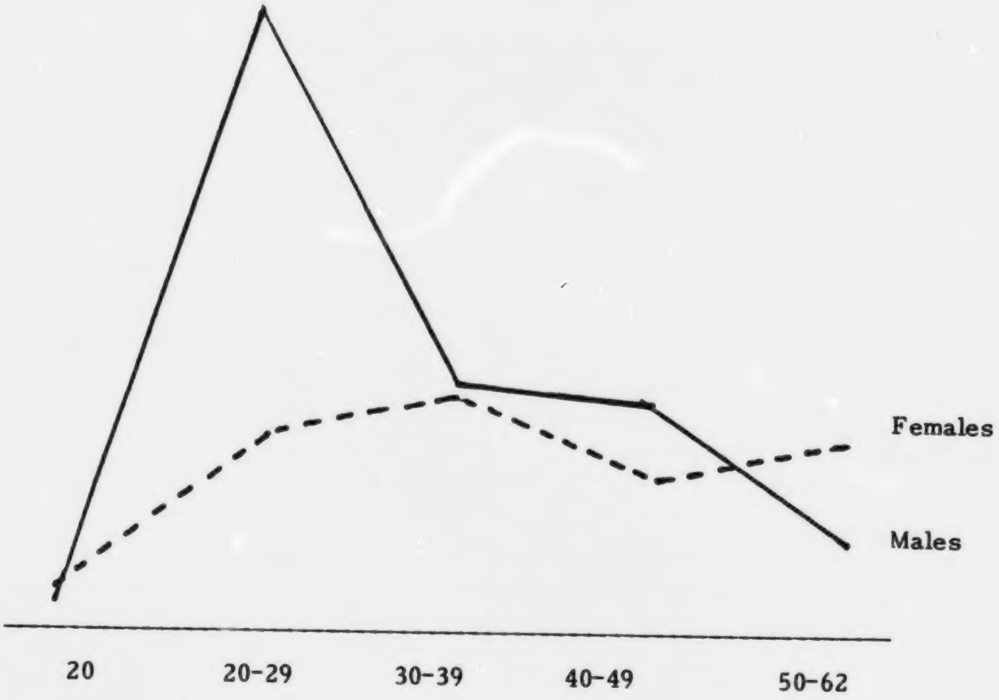


TABLE 5

Marital Status Totals By Sex

	Married and Common Law	Ever Married	Divorced/ Separated/ Widowed	Now Single	Always Single	Total
Males	18 16.5%	31 28.4%	13 11.9%	91 83.5%	78 71.6%	109 100%
Females	37 50.7%	51 69.9%	14 19.2%	36 49.3%	22 30.1%	73
Totals	55 30.2%	82 45.1%	27 14.8	127 69.8%	100 54.9%	182 100%

retrospective study, this is not a pattern of age at entry into the system, but it reflects a later age of onset among female patients. Figure 6 shows a graph of the same information.

Figure 6

Patients Interviewed by Age and Sex

Here one sees the female proportions rising later in life with almost a suggestion of a bi-polar effect. The high peak of males in the 20-29 year age group and the later age of onset for females is characteristic of most epidemiological studies of the schizophrenic patient group.

Table 5 shows marital status totals by sex of the patients interviewed.

Table 5

Marital Status Totals by Sex

The difference between males and females is striking. Those ever-married are totalled from the columns "married" and "common-law" and "separated/widowed" and those patients found single at the time of follow-up interview are totalled from the "divorced/separated/widowed" and "always-single". As will be seen, 70% of female patients were married or had been married at one time compared to only 28% of the male patients. Equally strikingly, 83% of the male patients were found to be single at time of follow-up interview, compared to 50% of the female patients. This difference becomes translated into the living circumstances shown on the next table, Table 6, where we find that household incomes for male patients are significantly below those for female patients.

Table 6

Gender Differences - Percentages by Living Conditions Variables I

48.6% of male patients lived in households at incomes at or below welfare levels, compared to only 20% of female patients. For income levels above $34,000 only 1.8% of males were represented, by comparison with 5.5% of females, and the difference in average income levels for the two gender groups is significant at the 5% confidence level. Clearly, taken in conjunction with the table on marital status, it would appear that the male patient, by and large, is living at an income level which represents his own income-earning capacity, while the female patient is more likely to be living in a household where the supporting income does not represent her own earning capacity. The small proportion of males living above $34,000 were all young people living in parental households. If these males are taken out of the analysis, the gender difference in incomes becomes even stronger.

The same material status difference is apparent when totals of males and females living with relatives and non-relatives is inspected.

Table 7

Gender Differences - Percentages by Living Condition Variables II

75.3% of female patients lived with relatives, compared to 52% of male patients, while the situation is reversed in living with non-relatives, where 37.6% of males were in this status, compared to 12.3% of females. An important difference is submerged in this figure, for many of the people living in households with non-relatives were living in residential care, small group homes and special accommodations of one kind or another.

The next table, Table 8, on nature of accommodation also shows a difference between males and females.

Table 8

Gender Differences - Percentages by Living Conditions III

It is apparent that males are considerably more likely than females to be living in residential care or in single rooms. Living in single rooms was frequently a type of special residence arranged by local authorities for the long-term patient. Once again there is a difference between the two genders in respect of living conditions, for a substantially larger proportion of females lived in single family homes and in homes owned by themselves or their spouse.

The gender differences found may be summarized as follows:

- Among schizophrenic patients males form a higher proportion than females overall.
- Age of onset appears to be earlier among males than among females.
- Males are less often found to be living:
    - in a spousal status;
    - to have been in a marital status at any time;
    - in family living at time of follow-up.
- Males are more often found:
    - at lower household incomes;
    - in poorer quality housing;
    - in residential care or special forms of housing arranged by the local service system.

This combination of circumstances, each with a gender difference at statistically significant levels, demonstrates a life-style advantage for female patients that I have called "the protected status of the female schizophrenic patient".

TABLE 6

Gender Differences - Percentages by Living Condition Variables I

	Males	Females	All Patients
Househod Incomes			
At or Below Welfare Levels	48.6	20.5	37.4
Above $34,000	1.8	5.5	3.3

Average Income

	Males	Females	
Mean Income	11,551	14,726	12,824

TABLE 7

Gender Differences - Percentages by Living Condition Variables II

	Males	**Females**	**All Patients**
Percentage Living with Relatives	52.3	75.3	61.5
Percentage Living with Non-Relatives	37.6	12.3	27.5
Percentage ever Married	28.4	69.9	45.1
Percentage Single at Follow-Up	83.5	49.3	69.8

TABLE 8

Gender Differences - Percentages by Living Conditions III

	Male	Females	All Patients
Percentage Living in Single Family Houses	49.5	67.1	57.1
Percentage living in Owned Houses (Patient or Spouse)	14.7	41.1	25.3
Percentage Living in Single Rooms	15.6	4.1	11.0
Percentage Living in Residential Care	16.5	4.1	11.5

A further difference between the two sexes found in the study lay in outcome scores, where it was found that males showed poorer outcome scores on all functional measures except that of physical activity. The outcome measures used are shown below.

Outcomes Measures

- Work performance or domestic competence
- Personal care
- Personal independence
- Physical activity
- Socialization
- Presence/absence of symptoms
- Present satisfaction and confidence
- Weissman S.A.S.

The actual differences in mean score on outcome aggregates between males and females are shown on the next table.

Table 9

Gender Differences in Outcome Measures

It is important to emphasize that these gender differences apply specifically to the schizophrenic patient group and should not be generalized to other diagnostic groups.

For the group as a whole the variable associated with positive outcome measures were: female gender; spousal status, (current or former); contact with own children; high socio-economic status; reading; good access to transportation, telephone, stores and recreation; short hospitalization; continued contact with health agencies; continued contact with physicians; location in one of four systems of care.

Among the components of treatment and care related to outcomes it is of interest that variables arising from current contact/maintenance in community showed 8 out of 8 significant associations, whereas immediate discharge/planning variables showed only 1 out of 6 significant associations and variables from acute care phases of treatment showed only 3 significant associations out of 12. The direction of associations between current contact variables and good outcomes was that of contact with physicians and health facilities appearing to have beneficial results. Effects were observed for a range of treatment and care components, which were in the direction of the most poorly functioning patients being in contact with non-health facilities and non-medical professionals.

TABLE 9

Gender Differences in Outcome Measures

Outcome Aggregate	Mean Score		Probability Level of Gender Difference
	Male	Female	
Presence of Symptoms*	1.8	1.3	.005
Work Competence	7.5	11.2	.000
Personal Care*	1.6	0.7	.002
Personal Independence	9.2	10.3	.020
Social Relationships	10.8	12.5	.013
Global Score	46.6	54.2	.000

* Scored in reverse direction

One particular system of the four in the study showed significantly better functional outcomes than those shown by patients in the other three systems of care. This result was achieved with the lowest index of psychiatric bed use per patient, in a system which itself has the lowest ratio of psychiatric beds to population in the country.

Interest lies in which system variables differentiated the "successful" system from the other three systems. These were:

- less hospitalization in total bed days
- shorter individual periods in hospital
- greater use of general, as opposed to psychiatric, hospital
- lower levels of current medication
- systemic requirement for regular medical audit
- systemic requirement for continuity of care by physician
- more lodging in single rooms
- less rehabilitation conferencing
- more direct involvement by psychiatrist throughout
- psychiatrist more likely to maintain contact in community

The data strongly suggest that a critical factor in the more successful performance of patients in System 2 was that their medication was more likely to be adjusted to changing patient status. This, in conjunction with the policy and practice of parsimonious bed use, is congruent with the systemic differences shown in the data. As the primary involvement of a psychiatrist at all phases of care from initial assessment to current community maintenance was associated with better outcomes, we may conclude that, for these schizophrenic patients, the systemic requirement for continuity of psychiatric contact is a major factor in a system's success. Together with a good program to enable patient accommodation in the local community, it probably accounts for System 2's marked ability to avoid lengthy periods of hospitalization, and in some cases to avoid hospitalization altogether. It should be noted that the patients in System 2 were not necessarily in contact with a physician alone. In many cases the regular contact worker for the patient was a nurse or a social worker, but the systemic requirement for regular medical audit of every patient who was receiving prescription drugs insured that these patients received regular supervision and assessment of medication in relation to current functional status.

Other variables which may have accounted in part for the System 2 results were transportation and rural residence, for the patients in that system enjoyed greater accessibility of transportation and a higher proportion resided in rural areas than in the other systems. However, these differences did not attain significant levels and the analysis makes it likely that the centrally important variables lay in the interaction of follow-up contact, supervision and physician monitoring of medication.

As a final commentary on the results of this study, they have implications for our understanding of the concept of community psychiatry. The emphasis on de-institutionalization policies and an early development of community care in System 2, dating from the early 60's in the province in which System 2 is located, are well known. This province and this location are recognized as proponents of community psychiatry, but there is a general impression, based on the U.S. experience, that community psychiatry implies a de-emphasis on physician input. The results on System 2 show this to be a mistaken impression. Psychiatrists in this community system played a predominant role throughout all stages of patient care, a conjunction of circumstances which upsets the stereotype that community psychiatry, of which the prominent feature is a comprehensive ambulatory care approach, necessarily involves an extensive deployment of non-physicians in clinical roles and an absence of medical case direction and supervision.

Finally some comments about future investigative directions. Attention has often been drawn to the question whether or not hospitalization should be employed as a dependent variable in evaluative studies. In spite of the superior performance associated with a low-hospitalization system in this study, the minor association between hospital days per se and functional outcomes confirms the evidence of national data that hospitalization varies markedly between different parts of the country and should not be regarded as an outcome variable. Set against the complex of policy, administrative decisions, treatment philosophy and individual styles of case management, the employment of time in hospital as a dependent variable seems invalid.

The surprisingly strong emergence of the group of accessibility variables clearly deserves further study. As they appear to have significant impact on patient function, they should be more acutely defined and tested.

In addition, any specific enquiry into patients' living conditions should include some consideration of accessibility facilitations - those circumstances in the patient's life which enable him most readily to go about the community and be in contact with the activities, facilities and personal contacts of normal community living. (The study data would indicate that, other things being equal, a patient would do better in accommodation in a run-down, centre-town neighbourhood than he would in a clean, spacious, suburban lodging far from transportation routes).

Compounding the gender effect, a difference in well-being between married and single patients was also noted, a difference which can be generalized to distinguish between patients who lack family support and those who are given a degree of family protection and assistance. Thus, "aloneness" should also be regarded by clinicians as a risk factor for social deterioration.

Perhaps the most outstanding indicator for further study is the matter of prescription practices and professional monitoring of medication. In particular, the hypothesis that continuity and regularity of physician contact with medicated schizophrenic patients impacts strongly on their status and well-being should be tested.

The suggestion of these data that less functional (and less rewarding) patients may be directed from medical professionals and facilities to social workers and social agencies should be examined at local program level. In itself the provision of social service assistance to chronic patients is admirable, but if that contact results in breaking contacts with health facilities, this is a matter for concern for this particular patient group.

Summary of Study Findings

In summary, program component differences between the four systems of care were identified. Some of these were found to be associated with better patient outcomes and one system, characterized by these program components, was also found to show better patient outcomes. Although no system of care can be lifted from its growth location and applied elsewhere, program indicators have been derived which should be useful in the development and evolution of programs of care for the schizophrenic patient group. In addition, specifics of gender, patient circumstance and living conditions, differentially identified in relation to patient outcomes, have indicated useful principles for case management of this particular group of long-term patients.

APPENDIX A

Criteria to Refine Patient Sample

Exclusion Criteria[1]

1) Alcoholism.
2) Evidence of coarse brain disease, including epilepsy.
3) Evidence of toxic, metabolic, endocrine disease.
4) Evidence of mental deficiency.
5) Subsequent rediagnosis to a non-schizophrenic disorder.

Inclusion criteria[2]

A - At least two of the following:

1) Thought broadcasting, insertion, or withdrawal.
2) Delusions of control, other bizarre delusions or multiple delusions.
3) Delusions other than persecutory or jealousy, lasting at least a week.
4) Delusions of any type if accompanied by hallucinations of any type for at least a week.
5) Auditory hallucinations in which either a voice keeps up a running commentary on the subject's behaviours or thoughts as they occur, or 2 or more voices converse with each other.
6) Non-affective verbal hallucinations spoken to the subject.
7) Hallucinations of any type throughout the day for several days or intermittently for at least one month.
8) Definite instances of formal thought disorder.
9) Obvious catatonic motor behaviour.

B - A period of illness lasting at least 2 weeks.

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[1] from Bland, R.C.

[2] from Spitzer, R.L., Endicott, J., Robins, E.

EPIDEMIOLOGICAL CONSIDERATIONS IN FORENSIC PSYCHIATRY: PROBLEMS AND POSSIBILITIES

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ABSTRACT

The paper rests on the argument that epidemiological research in forensic psychiatry, though offering even greater obstacles than are normally to be found in the study of general psychiatry, does nonetheless provide the investigator with certain valuable opportunities. Integrating data from criminal justice and mental health systems creates major theoretical and practical difficulties, and follow-up information on patients and prisoners, when it can be obtained, is often of dubious accuracy. Yet despite the many methodological and conceptual problems a great deal of useful information has been obtained over the past two decades on the "career paths" of mentally disordered offenders. These past findings, though often in need of confirmation and replication, do nonetheless have important implications for the design of treatment and rehabilitation programs in the present. The suggestion is made, albeit tentatively, that epidemiological researchers in forensic psychiatry need to develop more evocative and generally convincing ways of presenting their observations when it comes to helping government officials form new policy and procedures.

Each year in Canada some 5000 brief psychiatric assessments are conducted at the behest of the courts. The courts send prisoners for these single-interview examinations to gain psychiatric opinion as to whether or not persons are fit to stand trial. Although the decision about fitness is fundamentally a legal matter, the courts rely heavily on psychiatric advice and apparently follow it in the preponderance of cases (Jackson, 1982). The bulk of persons evaluated in this way are deemed fit to stand trial; about 80% return to court as competent and the matter is at an end from a psychiatric point of view. In declaring a person fit, the psychiatrist is, of course, not stating that the individual is free of mental disorder - only that the illness is unlikely to interfere appreciably with the particular forthcoming legal proceedings. The Canadian Criminal Code does not specify in any detail the kinds of issues which should and should not be addressed in brief forensic psychiatric remands for "observation", and it is completely silent about the nature and content of reports used by psychiatrists in their letters to the courts. In actual fact, it does not even say that a report must be sent (see Law Reform Commission of Canada, 1976, p. 34).

Fitness is a complex construct (Roesch and Golding, 1980). When mental health workers report on fitness, they will ordinarily address other matters such as treatability, suitability for bail, and the likelihood that the individual will be dangerous to himself or herself or to other persons in the future. In our research, begun in 1978, we set out to describe the population of persons remanded to the Brief Assessment Unit (BAU) at METFORS. The basic demographic data are to be found elsewhere (Webster, Menzies, and Jackson, 1982). Briefly, they show that persons assessed are likely to be young men with histories of incarceration and hospitalization. Although most have normal intelligence, they have severe difficulties socially and with finding and keeping employment. The same kinds of persons also appeared in our study of fitness examinations in six Canadian cities (e.g., Webster, Menzies, Butler, and Turner, 1982). The characteristics of the population are, as we have said, well known to us and to others who work in this area (e.g. Kunjukrishnan, 1979).

Although we have been very interested in examining the procedures used to determine whether or not a person is fit to stand trial (Roesch, Webster, and Eaves, 1984), our main research focus has been a long-term follow-up study of some 800 patients seen originally for brief assessment at METFORS in 1978 and early 1979. Our aim has been to link clinical predictions of dangerousness made at the time of assessment to actual outcome two years later and to find out about the "career paths" of our former patients as they progress through both the mental health and the criminal justice systems. This project has not been easy to execute. Some of the reasons for this will be elaborated below. It is sufficient for present purposes merely to state some of our main findings, which are as follows: (1) particular members of our clinical staff show a certain limited ability to make future predictions of dangerous behaviour (though the true nature of that ability is obscured by the research difficulties sketched below); (2) there is rather wide variation in predictive ability among clinicians according to the particular types of predictions being made, and (3) our patient population is, as would be expected, subject to high levels of recidivism and rehospitalization (with about two-thirds of the cohort having at least one contact with the criminal justice or mental health systems during the post-assessment two-year period). Much of our work on the prediction of dangerous behaviour has been summarized elsewhere (e.g., Sepejak, Menzies, Webster, and Jensen, 1983).

Our main aim in this exercise in epidemiology is to ascertain the dimensions of the "double revolving door" phenomenon in order that we might be better able to create new educational and rehabilitative programs to reduce, at least partially, this endless, miserable cycle faced by forensic psychiatric patients. In doing this research, we are coming to comprehend more fully the ramifications of the existing Criminal Code provisions as they affect mentally disordered offenders, and we are encouraged that our work on fitness-to-stand-trial (Roesch et al., 1984) and dangerous offenders (Webster and Dickens, 1984) is finding some application as federal officials work to reshape the relevant sections of the Code. This interest of the government in policy considerations adds decided impetus to our research. Yet we would wish to draw to the reader's attention the fact that there are considerable obstacles in conducting epidemiological work in forensic psychiatry. We will outline some of these difficulties in the following section and then point in the second section to some important possibilities for research and treatment.

Research Problems in Forensic Psychiatry

Before beginning a brief analysis of the difficulties of executing epidemiological research in this area, it may be wise to note that, for all the barriers, this field has one major advantage over most others in contemporary psychiatry. Much of forensic psychiatric work, especially court-ordered examinations, is relatively open to public scrutiny. The ordinary doctor-patient rules about confidentiality are altered, in that the psychiatrist is writing a report for use in a public court and in that the patient is usually informed that this is the case. This means that the activities of forensic mental health workers are open to scrutiny not just by the court officials but by researchers as well. Yet broadening the domain of psychiatry from clinic to court brings with it some difficulties. It it to these we now turn.

1. There tend to be mismatches between the linguistic and conceptual frameworks used by the mental health and the criminal justice systems.

Words like "insanity" do not have much meaning in modern psychiatric circles. While the American Psychiatric Association makes fairly frequent amendments to its Diagnostic and Statistical Manual, and even introduces as in DSM-III (1980) occasional major conceptual re-alignments, this level of detail tends to be beyond the capacity or interest of the courts. We find, for example, judges asking about "psychopaths" and psychiatrists answering in terms of "personality disorders". At a more fundamental level we should recognize that the law relies very generally on a dialectical epistemology (e.g., that "truth" can arise from error, that "truth" emerges from the pitting of opposites) whereas modern medicine rests on a fundamentally demonstrative base (e.g., that ideas conceived in error will end in error, that "truth" arises by proceeding from one secure point to the next).

Another problem is that the law tends to want Yes/No answers whereas medical practitioners are schooled to assess risk and to recognize that all medical interventions carry some chance of an adverse outcome. No operation is perfectly safe. Part of the art and science of medicine lies in the computation of probability of failure. Medical teaching and research rely on formal statistical information. The law also has a good deal to say on the matter of probabilities; it uses concepts like "beyond a reasonable doubt," "on the balance of probabilities," and "clear and convincing evidence". Yet as Yarmey (1979) says, "Decision-making in both science and law is based on the balance of probabilities, but the word 'probability' does not mean the same in each context. Scientific probability is based on statistical probability or replication, but legal probability is a subjective conclusion based on experience and intuition that one set of events is more likely to have occurred than another" (p. 33). We stress this fundamental difference in outlook because it is so important when it comes to designing data bases which interlock between mental health and criminal justice systems.

2. The legal tests (e.g. for fitness, insanity, dangerousness) are very broadly defined in the Criminal Code.

The Criminal Code definitions on some key issues are extraordinarily weak or completely non-existent. This means that it is possible to have very varied psychiatric procedures across Canada. Since the Code is so generally phrased, practitioners can operate in quite different ways, all within the law. As a result, there can be considerable problems in the interpretation of data.

3. The existence of a distinct Mental Health Act within each province means that the interactions with the Criminal Code provisions tend to be different from one province to another.

It is, for example, possible for one province to have relatively few Warrants of the Lieutenant Governor because the practice is to use civil certification as an alternative. If the Mental Health Act criteria are hard to satisfy, more persons will likely be "diverted" to the criminal justice system than might otherwise have been the case (cf Penrose, 1939).

4. Record-keeping systems within the criminal justice system can provide reasonably accurate data on many individuals (though, of course, underestimating contacts) but the amount of information tends to be quite limited in these individual cases.

Knowing that someone is charged with Assault Causing Bodily Harm may be some help to a researcher, but more detail is needed for good epidemiological work. It is possible to obtain certain limited amounts of data on a cohort through federal law enforcement but the system does not necessarily provide much fine-grain detail. The same can be said for "infractions" in prison.

5. Record-keeping systems within the mental health system can yield impressive, indeed almost overwhelming amount of information about an individual, but there exists neither a national central registry nor a provincial registry in most cases.

This means quite literally that researchers have to go from one hospital to the next trying to track members of a cohort. But there are so many mental hospitals in the country, to say nothing of psychiatric wards in general hospitals and the like, that this research task is very hard and almost impossibly expensive.

6. Having gathered as many data as possible, one is then faced with complicated problems when it comes to merging or integrating information from two distinct data sets.

There always have been problems in criminology of scaling the relative "seriousness" of particular offenses or criminal acts (see Sellin and Wolfgang, 1964). It is even harder when the epidemiologist tries to scale data from two disparate sources, mental health and criminal justice. If a charge is laid, the action in question tends to be ascribed one kind of meaning; if no charge is laid relating to that same incident and the individual is instead taken to the admitting unit of a hospital, another kind of meaning is assigned. The channelling of the person to the one system rather than the other may be more or less arbitrary (depending upon the outlook and experience of the police officer, etc.). Yet the two consequences are quite different for the individual, and this becomes an issue if the data sets are to be combined for analysis.

7. Major problems can arise with respect to the accuracy of data obtained from patients and prisoners, and these difficulties may be greater than those encountered in epidemiological work in other spheres.

Medical doctors may have difficulty in obtaining information from patients, even ones who are fully rational and actually have everything to gain from full disclosure. Forensic clinicians have to deal with patients who are frankly psychotic, and must also contend at times with persons who have everything to gain from keeping their information to themselves, and who may in fact have been well-advised to do so by their lawyers.

8. The reliability of psychiatric diagnostic opinion is a persistent problem in psychiatry generally, and forensic psychiatrists sometimes experience greater-than-usual difficulties.

All psychiatrists have an interest in trying to establish the eventual prognosis for their patients, and all psychiatrists are responsible and legally empowered to minimize short-term risks to the patient and to the public. Forensic psychiatrists have these same duties, but also assist in the making of decisions which can have a vital influence on a person's life over the long term. Under the Criminal Code, psychiatric opinion critically influences whether or not individuals are placed under Warrants of the Lieutenant Governor or deemed to be "Dangerous Offenders" under Part XXI of the Code. These decisions are vital insofar as they can eventuate in a person being detained indefinitely in a secure hospital or penitentiary.

Knowing the importance of the outcome to the prisoner/patient, the clinician has to approach these legal manoeuvres with great care. Much depends on the individual practitioner's "frame of reference". Some doctors adhere to the "medical model" fairly strongly, stressing the "rehabilitative idea", but others abide by an "individual responsibility/just deserts" model which removes the emphasis from psychiatric intervention. The former type may be inclined to "see" psychosis, especially if they know the dispositional alternatives; the latter may not. This means that psychiatric diagnostic opinion, so central to much of epidemiological research, is often quite "spongy" and apt to be even more suspect than usual.

9. Information tends to flow in one direction only--from psychiatry to the criminal justice system; there is little by way of reciprocal information linkages.

After psychiatric opinions are rendered, normally in the form of letter, little is ever heard from the courts. The courts do not, in the first place, usually state their questions about an individual with any precision, and only rarely do they report to psychiatric officials how, if at all, the report was used and how it affected the court decision. This makes for an epidemiological nightmare. If we concede for the moment the fact that it is very difficult to know the extent to which a court decision was in fact influenced by psychiatric opinion, we are, in the absence of the critical court decision, in no position even to guess about the importance of the clinical information. As for dealing with the ethical issues involved (i.e. what kinds of information should or should not be transmitted to the courts), there are as yet huge unresolved problems. At a more workaday level, we merely wish to state that an epidemiologist trying to study the interplay between these systems has to think deeply at outset. Part of the solution would seem to lie in teaching practising clinicians to gather their own follow-up data, since it is often easier for them to get the information than it is for researchers.

10. Very generally, the criminal justice system tends to be cautious (if not immune) to changes in policy and procedure suggested in the "interests of research".

A great deal of epidemiological work in conventional medicine does of course face ethical and administrative structures. For obvious reasons it is not often possible to withhold treatment and the like. Yet such possibilities do occur and can be created within medicine. However, for perfectly obvious reasons, judges are singularly unlikely to be induced to use random sentencing, matched sentences, etc. Indeed, they cannot in the short run tinker with legal procedures beyond certain limits. These limits are what "hold society together" yet medical science, including epidemiology, often makes its advance precisely as a result of controlled experimentation over defined periods of time.

Possibilities for Research and Treatment

In the preceding section we have outlined some difficulties with respect to epidemiological research within the domain of forensic psychiatry. Although some of these are more-or-less inherently unsolvable, we can nonetheless say that there have been marked advances in this general area in the last 10 years. There have been several reasonably good descriptions of the various mentally disordered offender populations (e.g., Quinsey, 1981; Webster et al., 1983) and there have been some acceptable follow-up studies (e.g., Gibbens and Robertson, 1983; Hafner and Boker, 1982). Most important of all is the fact that these data, inadequate and partial though they may be, do appear to be having an important influence in policy formation.

Our follow-up data over two years tell us what we already know in a general way. But when we actually see the "career paths" of these persons as they are being assessed and re-assessed over and over again at huge expense and personal inconvenience, it is hard not to escape the conclusion that much of this could be spared. Simple computerized control, with data interlocked among the various Canadian forensic assessment units, could save large sums of money each year without infringing access to treatment or, with some care and attention, the civil rights of patients. With more properly-organized data, we could perhaps train and monitor psychiatrists better. In the absence of information return from the courts and correctional systems, it is hard to imagine why psychiatrists and other mental health workers should ever become more accurate in their assessments and predictions.

In this regard there is a big job to be done. Psychiatrists and other mental health professionals must be made to realize that their competence derives both from clinical ability, and a knowledge of how their decisions actually affect particular individuals as they progress through the criminal justice and mental health systems. On this slightly optimistic note, we can now turn to a brief consideration of some ideas which could prove useful in forensic psychiatry.

1. It is important to ensure that assessment measures, including research devices, do not compound the patient's difficulties.

It is necessary continually to question the degree to which clinical work "creates" or "constructs" "mental illness" and the extent that at times, and unwittingly, epidemiological study can abet the social construction of illness. What is the real impact of assessment devices? What do all the oft-repeated questions about sickness do to our patients? Are we making the assumption that our patients, through repeated evaluations, do not learn the role largely expected of them? We need, in other words, assessment devices that tap abilities as well as deficiencies. We have started to try to teach our patients about the nature of mental illness, the effects of medication, etc. (see Webster, Jensen, Sterman, Gardner, and Slomen, 1984, submitted). We must try hard to explain the nature of mental health. After a person has been a mental patient for years, how can he or she be expected to know this?

2. If the power of epidemiological work in forensic psychiatry is to be enhanced, it will be necessary to focus attention on the assessor as well as the assessee.

If researchers want data from patients (e.g., body products, results of questionnaires, etc.) there is rarely a difficulty in gathering them. If they want data from the assessor (e.g., about attitudes, professional competence, or even the way the system works) there will likely be some problems in obtaining them. If they want data about patient/assessor interactions (i.e., decision-making), it will almost certainly be necessary to overcome large obstacles. Yet a large amount of variance likely resides in sources other than the patient.

3. Increased attention must be devoted to establishing record-keeping systems that are useful for both clinical and research purposes.

In forensic psychiatric settings, as in other related spheres, huge amounts of clinical data are created on each patient. These data tend to be characterized by redundancy (different clinicians writing the same things) and impenetrability (obscure and imprecise use of language). The task of conducting content analyses from medical charts is such as to daunt all but the most dedicated of researchers. Yet it ought to be possible to streamline documentation in ways that could spare the clinician's time and offer new scope to researchers. The advent of micro-computers holds great promise for the future, especially if key Canadian researchers and administrators can standardize the kinds of basic information collected on forensic psychiatric patients.

4. In psychiatric epidemiological work it is important to consider the implications of the idea that a patient's particular mental illness is not always or even usually static.

Epidemiology works well with venereal disease, typhus, and the like. With the aid of a medical dictionary it is often easy to point to a material (biomedical) cause of physical illness. But DSM-III and such schemes cover a broad terrain and the various kinds of disorders arise and alter according to many inter-relating variables. In Aristotelian terms, psychiatry has to deal not only with material but also with efficient, formal, and final types of causation. We are questioning, albeit tentatively, the value of some of our conventional classificatory systems. Even though any experienced psychiatric epidemiologist knows the problems of reliability with ICDA-9, DSM-III, and similar schemes, it may be wise to consider that, though perhaps more dependable and accurate than their precursors, all such typologies have marked inherent limitations (see Duckworth and Kedward, 1978). In our own research involving the follow-up of former prisoner/patients, we too classify members of the cohort in terms of a "primary diagnosis" of psychosis, personality disorder, affective disorder, etc. Yet sometimes we wonder if our data are in the right cells. If the person had been assessed on Tuesday instead of Wednesday, would he or she have been in this box rather than that? And what if the person had been seen by Psychiatrist A rather than B, and so on?

5. It sometimes might be wise to question the use of many psychological rating scales and tests.

As time goes on, psychiatrists are becoming increasingly conversant with psychometric devices. But within contemporary psychology there is a movement which questions the use of scaling on the grounds that the items on standard scales may not be equally applicable to all persons (e.g., Bem and Allen, 1974). Moreover, these scales are constructed from the researcher's phenomenal frame of reference, and may have little connection with that of the patient. It may also be that a person scoring perfectly on all items but one of a 100-item scale may, if it represents a marked deviation, be in far greater need of help or special consideration than a person who scores in the "fairly disturbed" range on many items.

6. It could be that over the next few years epidemiologists, as well as collecting and conveying statistical "facts", will undertake, as a legitimate study in its own right, how lay persons--and even scientists--are affected or not affected by statistical givens.

In essence, it has been shown repeatedly that people do not use statistical information until all other information (about personality characteristics, etc.) has been eliminated. As researchers, we continue to imagine that statements to the effect that x% of these bad-sounding conditions and y% of those drastic diagnoses will alarm administrators and provoke them into action. The work of Tversky and Kahneman (1974) suggests that this is unlikely.

7. Although it may be wise to be skeptical about DSM-III, there can be no harm in recognizing some of its obvious merits.

The new criteria for many disorders are reasonably precise. We are at a point where we could at least train clinicians to make sure that, where applicable, the criteria are met (Martin, in press). For example, while there are many references to the stability of conditions over time, these are seldom checked. With the recent scholarly effort in DSM-III to yield a comprehensive set of psychiatric classifications, we are now in a position where clinicians and researchers could make more systematic attempts reliably to diagnose their patients.

8. Studies are needed to determine how resources can best be allotted.

Mental patients have, generally speaking, few resources relative to most other people in society. And forensic patients, who are periodically also prisoners, have even fewer goods and services available to them. Researchers must devote more effort to finding out what patients really do need and begin to think of restructuring organizations so that services are distributed more equitably. This may in fact be more possible than most would think. We are calling for a kind of psychiatric epidemiology that differs in some respects from conventional epidemiology - a rather phenomenological approach which takes the patient's wishes fully into account.

9. In approaches to government and other granting agencies, researchers must become more adept in the use of descriptive as well as statistical data.

Very few lay people form much of an "image in the mind" from the results of a badly-presented "stepwise multiple regression" table. To them it is magic, perhaps not even very good magic. Even the characteristics of groups of patients expressed in percentage terms may lack a compelling force. Simple case-by-case descriptions may be a necessary adjunct to statistical accounts.

10. While maintaining allegiance to conventional scientific principles, it is necessary to commit some research effort to the establishing of new rehabilitation and treatment programs.

In saying this, we are, of course, not advocating that serious social and medical scientists should abandon their computers for the political hustings. The point is simply that the plight of some mentally disordered offenders, having been documented ad nauseum, needs alleviation, not further description (see Greenland, 1984). What does require documentation is the effectiveness or other results of those new ventures. We are suggesting that epidemiological researchers in forensic psychiatry will have to play a stronger role in the future in the formulation and evaluation of treatment programs. Remarkable efforts have been made to help forensic psychiatric patients during the past twenty years (e.g., Barker and Mason, 1968), but our knowledge of the actual effectiveness of those projects is largely pitiful (see Quinsey, 1981).

References

Barker, E.T., and Mason, M.H. Buber behind bars. Canadian Psychiatric Association Journal, 1968, 13, 61-72.

Bem, D., and Allen, A. On predicting some of the people some of the time: The search for cross-situational consistencies in behavior. Psychological Review, 1974, 81, 506-520.

Diagnostic and statistical manual of mental disorders (DSM-III) (3rd ed.). Washington, D.C.: American Psychiatric Association, 1980.

Duckworth, G.S., and Kedward, H.B. Man or machine in psychiatric diagnosis. American Journal of Psychiatry, 1978, 135, 64-68.

Gibbens, T.C.N., and Robertson, G. A survey of the criminal careers of hospital order patients. British Journal of Psychiatry, 1983, 143, 362-369.

Greenland, C. An experiment that failed. Canadian Journal of Psychiatry, 1984, 26, 1-12.

Häfner, H., and Böker. Crimes of violence by mentally abnormal offenders: A psychiatric and epidemiological study in the Federal German Republic. Cambridge: Cambridge University Press, 1982.

Jackson, M.A. The outcome of brief forensic psychiatric assessment: A study of 188 cases over an eight-month period. In C.D. Webster, R.J. Menzies, and M.A. Jackson (Eds.), Clinical assessment before trial: Legal issues and mental disorder. Toronto: Butterworths, 1982.

Kunjukrishnan, R. Ten year survey of pretrial examinations in Saskatchewan. *Canadian Journal of Psychiatry*, 1979, *24*, 638-689.

Law Reform Commission of Canada. *Mental disorder in the criminal process*. Ottawa: Law Reform Commission, 1977.

Martin, B.A. The reliability of psychiatric diagnosis. In C.D. Webster, M.H. Ben-Aron, and S.J. Hucker (Eds.), *Dangerousness: Probability and prediction, psychiatry and public policy*. New York: Cambridge University Press, in press.

Penrose, L.S. Mental disease and crime: Outline of a comparative study of European statistics. *British Journal of Medical Psychology*, 1939, *18*, 1-15.

Quinsey, V. The long-term management of the mentally disordered offender. In S.J. Hucker, C.D. Webster, and M.H. Ben-Aron (Eds.), *Mental disorder and criminal responsibility*. Toronto: Butterworths, 1981.

Roesch, R., and Golding, S.L. *Competency to stand trial*. Urbana: University of Illinois Press, 1980.

Roesch, R., Webster, C.D., and Eaves, D. *The fitness interview test: A method for examining fitness to stand trial*. Toronto: Centre of Criminology, University of Toronto, & Vancouver: Criminology Research Centre, Simon Fraser University, 1984.

Sellin, T., and Wolfgang, M.E. *The measurement of delinquency*. New York: John Wiley, 1964.

Sepejack, D.S., Menzies, R.J., Webster, C.D., and Jensen, F.A.S. Clinical predictions of dangerousness: Two year follow-up of 408 pre-trial forensic cases. *Bulletin of the American Academy of Psychiatry and the Law*, 1983, *11*, 171-181.

Tversky, A., and Kahneman, D. Judgement under uncertainty: Heuristics and biases. *Science*, 1974, *185*, 1124-1131.

Webster, C.D., and Dickens, B.M. *Deciding dangerousness: Policy alternatives for dangerous offenders*. Ottawa: Department of Justice, Canada, 1984.

Webster, C.D., Jensen, F.A.S., Stermac, L., Gardner, K., and Slomen, D. Teaching as an aid to assessment: Psychoeducational programmes for forensic patients, submitted.

Webster, C.D., Menzies, R.J., Butler, B.T., and Turner, R.E. Forensic psychiatric assessment in selected Canadian cities. *Canadian Journal of Psychiatry*, 1982, *27*, 455-462.

Webster, C.D., Menzies, R.J., and Jackson, M.A. *Clinical assessment before trial: Legal issues and mental disorder*. Toronto: Butterworths, 1982.

Yarmey, D. *The psychology of eyewitness testimony*. New York: Free Press, 1979.

ISSUES IN THE DEVELOPMENT OF SERVICES FOR MENTAL ILLNESS IN THE AGED

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ABSTRACT

Each year the number of people over the age of 65 increases in Canada and in most western countries. Prevalence studies indicate that the numbers of mentally ill in that age group are greater than in those in any other period of life. In particular, dementia occurs in about 1% of those over the age of 65 in all nations where prevalence studies have been carried out. In Canada, services for the elderly are still provided on an ad hoc basis. While there are services defined and established for psychogeriatric populations in the United Kingdom, there is no planned comprehensive service for this age group in this country. The varied innovative psychogeriatric services in Canada are reviewed. Using the United Kingdom experience as a demonstration model, the strengths and weaknesses of those services are examined and recommendations made for the direction that planning should take in Canada. Although the philosophy of domiciliary care is probably desirable for most patients, any national planning should be cautious in defining services in the community. It seems clear that treatment of the more disabling states of dementia in the patients' own homes will involve much greater expense than using a hospital base. Use of a staging model based upon the severity of the mental disorder and relating service resources to the size of the elderly population in a region will allow the costs of health-care to be contained at an acceptable level.

The elderly do not have a constituency in our society: to be young and appear young is good, and to be old and appear old is bad.

Perhaps all the crying from the rooftops about the needs of the mentally ill elderly will do no good. But we should try, and the way to succeed is to do our best with what we have already got, and to demonstrate the service, prove it on the ground, and do so quickly and cheaply. We should get away from grandiosity.

In the planning and implementation for psychogeriatric services, we have a big demonstration model system--which cost us nothing--in the United Kingdom. In Canada, we face an increasing population of elderly. We, too, should plan and implement. We should look hard at programs in the United Kingdom, use what is good and appropriate for us, and discard the rest.

I had the good fortune to be asked to design and set up a service in a northern region of the U.K. last year, and can offer you some critical comments on the standard model for the services there.

The first task which speakers at this symposium were asked to perform was to outline those research findings which may be applied to human service programs. There is little in the way of research findings on the aged mentally ill to be reviewed, particularly when compared to information on disease entities such as schizophrenia, or on population groups like children, or in forensic psychiatry. But we are all aware of much statistical information which has been known for a long time and which continues to be ignored. It is these data, readily available, which must somehow be forced upon the policy-makers.

At the beginning of a recent official publication in the United Kingdom, "The Rising Tide"--which I commend to you--is the following statement by Dick:

> By now there can surely be no one left who knows anything of health and social services who is unaware of the need to take action on the problems of age-related psychiatric disorder in the increasing proportion of old people in our community.

This may be true in Great Britain--I don't know--but I wish it were true in Canada. Do we have a single example of programatic planning for the elderly mentally ill in a large region anywhere in this country? I haven't been able to find one.

There are numerous examples of enthusiastic, innovative, entrepreneurial effort. In Ontario there is the Pioneer Service in Ottawa, the coordinated service of Dr. Roy in Hamilton, the health emphasis in the service Dr. Harris has established in London, Dr. Rodenberg's community service in Kingston, and in Toronto the Sunnybrook-Whitby axis of Drs. Shulman and Chang, the medical-psychiatric infant of Dr. Meier at the Toronto Western Hospital, the provincial resource hospital service at the Clarke Institute now extended by Dr. Eastwood to reach the Queen Elizabeth populations and Baycrest. There is the interesting, arm's-length, non-hospital, community advisory service developed by Dr. Wasylenki, but nowhere do I see these ideas being appreciated or understood by the planners in the context of future needs--the rising tide of psychogeriatric illness which demands coordination of many social energies.

> The problem is not just one for specialist psychiatric services which, indeed, only look after a small proportion of the more severely affected. It also concerns geriatric services, primary health care, the social services, and general hospitals where the slow movement of elderly people may reduce the capacity of surgical and medical departments to meet the needs of younger patients. There is a large private sector of nursing homes and residential homes where the confused elderly are increasing. There are implications for housing, transport, and voluntary

> services. In a mobile society where increasing numbers of women work outside the home, family support is less available than formerly. Nevertheless, the great majority of old people live in their own homes with their spouses or family or in regular contact with their families, or with support from neighbours. The commonest pattern of care in the years of decline towards death in old age is therefore support within normal family and social structures with help when needed from primary health care and social services, backed by specialist hospital services. (Dick)

Up to 10% of those over 65 are likely to show evidence of dementia, and 25% of this group require institutional care while the remaining 75%, with sufficient support, can remain in the community.

In Ontario, 10% of the population is over 65 years of age; projections to the year 2001 suggest that this will increase to 20%. As consumers, the present 10% of the population in this age group receive 35% of all drug prescriptions and 42% of all hospital services, and yet they are still underserviced in some medical areas. The over-65 group accounts for only 4% of psychiatric out-patient attendances for example.

Hemsi (1982) presents interesting demographic data from the United Kingdom:

> In 1978 the estimated total population of the United Kingdom was just under 56,000,000. It is projected that it will rise to 57,000,000 in 1991 and to 58,000,000 in 2001 (increases of 1.8% and 3.6% respectively).
>
> Among the elderly, the changes are not even. The group aged 60-74 is expected to fall from 8,000,000 to 7,700,000 (-3.8%) and to 7,142,000 (-10.7%) in 1991 and 2001 respectively. In contrast, the population over the age of 74 years is due to rise by 21% and 24% respectively by 1991 and 2001 (from 2,988,000 in 1978 to 3,621,000 and 3,694,000) (p. 257).

These statistics show demographically that the elderly populations with differing trends will require different services because of the vastly increased incidence of dementia--the disorder of the elderly which demands the most services.

To take another country, Nielsen (1962) studied the prevalence of mental disorders in Denmark. He found that organic mental disorders in the 65-and-over group accounted for 19% of these disorders; by the age of 85 it was 60%.

Dementia crosses all frontiers: the figures are the same, regardless of which country one examines.

Predictions of need for many more hospital places are perhaps less intimidating in Canada because we already have the highest rate of institutionalization in the world. Dr. Rodenberg acknowledges a figure of 9% of the elderly in Ontario in institutions, compared with 7.7% in the whole of Canada and 5% in the United States.

Other countries have reacted with alarm to the inexorable march of population numbers, and although not already carrying the burden of expense of a high institutional rate, many do have a more rapidly increasing population of aged than in Canada. In the United Kingdom, the preplanning phase involved setting down a list of questions (Dick):

- What is the local need for a co-ordinated specialist service for mental illness in old age?
- For which defined group of old people will the service be responsible?
- Who should be given responsibility for the initiation or further development of the service?
- What are the functions of key members of staff?
- What are the components of a comprehensive service for the psychiatry of old age?
- What established models are suitable for local adaptation?

The list goes on. I give these as examples of issues that we must face before there is the possibility of the preplanning phase.

Given all this material, one can only echo Dr. Goldstein of Queensway Carlton in Ottawa who said, "It is astounding and disconcerting that we must still promote geriatric services in North America. We should be directing our energies to studies of improvements in existing services."

From the beginning of the development of geriatric services in England, there has been a policy to reduce institutional care, or, in other words, to extol the humaneness of nursing patients at home. Only recently have Millar and Toynbee (1982) pointed out that one man's right to live at home may become another's duty to care for him. Even a non-dementing illness changes people; they may become "better" or "worse," but never the same.

Planning geriatric services was coincident in the U.K. with the movement to deinstitutionalize chronic psychiatric patients, but was more nationally-based and, in the beginning, less ideological. This is not so today.

A case could be made that the whole reason for emphasis on home care was a cynical, unfeeling desire to cut costs. Even in the practice of domiciliary assessment, Lord Amulree, who died recently--the father of the National Health Service specialist home visit--began to press for this in 1950 because "hospital resources for the elderly were limited." It is true that he became persuaded of the values of maintaining a patient at home and used the telling phrase: "Adding Life to Years".

His perception of the need for that attitude is dramatically confirmed by a walk through many of the homes for the aged in Canada where 75% of the residents (inmates) spend the majority of their time physically inactive, slumped, staring vacantly ahead. (Didn't we hear this once about schizophrenia?) They would clearly be better living independently at home. This is not true of others not capable of independent living; the demented in later stages require full care. Each case has to be treated on its merits.

In the U.K., there is a degree of ideological confusion about domiciliary care. The patient will stay at home because the physician is happier with this arrangement. As the Canadian el-Guebaly observed, the psychogeriatrician in the United Kingdom is the gatekeeper of the hospital system.

The most striking characteristic of psychogeriatric services in Great Britain is the home visit or domiciliary assessment. The justification for the belief that all patients referred should be assessed at home has been argued by Jolley and Arie (1982). Their reasons for insisting on the importance of initial home assessment follow:

1. Psychiatric problems in older people are almost always problems of function--and of function in their normal setting; old people perform quite differently in unfamiliar settings, and what is at issue is not function in an out-patient clinic or hospital ward, but function in that normal setting.

2. Home visits allow not only the function but the characteristics of that setting to be observed--its amenities or lack of them, whether the place is warm, whether there is food in the larder and signs that it is being eaten, whether the bed is slept in, whether there are accumulations of bottles, etc.

3. An on-the-spot visit enables one also to speak to neighbours, local shopkeepers, visiting friends--people who may have been brought on the scene only by the crisis that has generated the referral. The importance of a collateral history in psychiatry is well known.

4. The process of moving an old person, especially an old person who already has a degree of confusion, may exacerbate that confusion and, indeed, threaten life.

5. Hospitalization of an old person may pre-empt wiser and more appropriate solutions, and therefore fly in the face of the prime consideration of maintaining an old person as an independent citizen in her/his own home; the "hole" in the community left by a person who is removed, even temporarily, has a way of closing rapidly and it may be very difficult to resettle that person, however complete their recovery.

Hemsi (1982) takes a similar view to Wasylenki in Canada: "The nature of mental disorders is such that often no hospital investigations are necessary and little or nothing is gained by the elderly patient, as opposed to other people, by admitting him to hospital."

The emphasis in the U.K. on placing services in the community stems partly from the general reaction to historical practices of institutionalization. Psychiatric services based in County Asylums situated at a distance from the populations served were also distant from other health services for acute and chronic sickness. Although this pattern was clearly undesirable and inefficient for the care of mentally ill people of all ages, it was particularly so for the elderly, who show the greatest morbidity and often require immediate treatment for physical ills.

Government in the U.K. provides guidelines for the care of the elderly with psychiatric disorders. These requirements are for a district service with a total population of 200,000, and a total of 30,000 over the age of 65 (Jolley and Arie, 1982).

Functional Illness in the Elderly:

i. 15 acute beds (from within the general psychiatry allocation of 100 beds).

ii. 5 new long stay beds (from within the general psychiatry allocation of 34 beds).

iii. 20 day places (from within the general psychiatry allocation of 130 beds).

Dementia:

i. Psychogeriatric unit: 30 beds.

ii. Psychogeriatric long stay: 75 to 90 beds.

iii. Day Places: 90.

Consultant time:

15 sessions

Non - Consultant Medical Staff:

i. Trainees - 25% share of total in psychiatry

ii. Senior registrar - 25% share of total in psychiatry

iii. Clinical assistants - according to availability and deployment.

Secretarial Staff:

1.5 to 3 secretaries for the functional illness service and the psychogeriatric unit. Additional secretarial time for the dementia day hospital.

Community Psychiatric Nurses for the Elderly:

2 to 6 community psychiatric nurses.

Social Workers for the Elderly:

1.5 to 3 hospital-based social workers.

There is also a newly conceived, separate facility called the ESMI Unit (the elderly severely mentally ill unit). The building program for these units covers the whole county; a large number are completed and functioning. Each serves a population of about 200,000 people, and has its catchment area coincident with that of the local authority social services. These units are custom-designed with three floors--two units of 28 beds each within the upper two floors and the ground floor providing space for a day hospital.

Planning in the United Kingdom is difficult because changes in population numbers will not be even. As I mentioned, there will be vast increases in the numbers of people over the age of 75.

Service provision is based on staging. Referral to the psychogeriatric consultant for domiciliary assessment may be performed by many agencies, but it is recommended that it should always be done through a general practioner or consultant physician. Based upon the findings at that assessment of the level of functioning at home, recommendations are made which open a number of possible channels for subsequent care.

1. The patient remains at home: advice on management is given to general practitioner; follow-up is offered by psychogeriatrician or community psychiatric nurse. No further action.

2. In addition to Social Services "mobilized", a social worker (a local authority employee) is contacted and asked to help initiate Home Help Service, Meals on Wheels, regular domestic monitoring by a social service visitor, application for supplementary income (e.g. "attendance allowance"), and application for a regular place in a Day Centre. No further action.

3. The patient is placed in Day Hospital Care--usually for observation of clinical state or for follow-up after discharge from hospital.

4. Relief is offered to family "care-givers" by two-week admission of patient to hospital or residential home. Holiday Relief.

5. Application is made to local authority for the patient to be given a small apartment in "Sheltered Housing".

6. Admission of the patient to the general psychiatry unit for diagnosis of functional psychosis.

7. Application is made for a place for the patient in the Local Authority Residential Home. 44-bed new custom-built units are set in neighbourhoods.

8. The patient is placed on a waiting-list for a chronic care hospital bed.

Holland, a country which profited from the windfall of North Sea gas, built up social services and hospitals and developed health-care on the proceeds. This has resulted in an institutional program on the same scale as Canada's but with the greatest emphasis on the more expensive sheltered housing. This country serves as a warning to us, because as the gas is running out, these costly programs cannot be maintained; severely demented patients have to be "warehoused" inappropriately with the quality of their lives reduced, in nursing homes and in hospitals.

In this article entitled "Home Care: Is It Cost-Effective?" Clarfield (1983) offers some simple observations on the subject:

> Can it keep old people happy, healthy and out of institutions, and cost less than the alternatives? On this important question hinges most of the argument over whether more resources should be earmarked for home care or whether, and even more controversial, funds should be transferred from institutional to home care budgets. There has been much discussion of late concerning care of the elderly, the increasing cost of medical care and whether society will ever be able to afford to pay for what we have promised ourselves in our own old age. The issue of the cost-effectiveness of home care is one of the central problems. . . . For a patient with mild disability (level A), home care should be significantly cheaper than the two alternatives at this functional level. At a greater level of disability (level B), home care becomes as expensive as hospital care, but a home for the aged (residential care) would be the least expensive alternative. At an even greater level of disability (level C), hospital care is the most economically efficient. (pp. 1181-1183)

In the U.K. in 1977, Opit wrote an article entitled "Domiciliary Care for the Elderly Sick--Economy or Neglect?" He investigated the costs of domiciliary care for 139 elderly sick patients, and commented as follows:

> The data suggest that there may be little economic advantage in home care for seriously disabled elderly people. The revenue cost of domiciliary care was equal to or greater than the average associated with residential or hospital custodial care in such patients. (p. 30)

Again in the United Kingdom, a report was recently written by Williams (1984) on the unreported need of elderly patients. He looked at a number of patients over 75 years who had no contact with the primary-care team and found that over half of these people had no one to oversee them or to assist in caring for them. Turning to institutions in the U.K., we find a recent article entitled "Institutional Malnutrition" by Bender (1984). This report states that illness, drug treatment, poor appetite, and the possibility of monotonous menus may help to explain why half the hospital patients are suffering from some degree of malnutrition, and why between 5% and 10% literally die of starvation.

Research

Most of the really compelling aspects of research findings relate to the above. From the point of view of service, the questions are, how are you going to do it?; what is the best way to do it?; how can you arrange a service that you can afford?; should this be done not only now, but in 20 years' time? There remain other areas of research, as well. Jolley (1980) wrote succinctly about an area of inquiry that has been opened up by biochemical discoveries:

> Post-mortem and biopsy material from patients with the clinical characteristics and histological findings of senile dementia is deficient in choline acetyl transferase (CAT), and these deficits seem to be independent of age and not due to post-mortem changes.

Neary has designed in Manchester a research project entitled "Pre-Senile Dementia and Cortical Atrophy: A Neuropsychological, Pathological and Biochemical Study." He is concerned with choline acetyl-transferase, and he relates the EEG findings with the findings at biopsy and quantification of CAT together with psychological tests.

How can medical services be organized? The physicians will remain central to providing many medical services for many people as our elderly continue to increase in numbers. One model which I draw to your attention is happening in Ontario and is called an HSO. This is a departure from the fee-for-service system, resembling more closely the capitation system. The physicians are remunerated for their work on a sessional or time basis. The latest one to be announced has been established in family practice at Sunnybrook Hospital, and may be appropriate also for the care of the elderly.

References

Bender, A.E. Institutional malnutrition. British Medical Journal, 1984, 288, 92-93.

Clarfield, A.M. Home care: Is it cost-effective? Canadian Medical Association Journal, 1983, 129, 1181-1184.

Dick, D. The rising tide. Health Advisory Service. The National Health Service. Sutton, Surrey, England.

El-Guebaly, N. Report of Research Leave. University of Manitoba.

Hampton, J.R. The end of clinical freedom. British Medical Journal, 1983, 287, 1237-1238.

Hemsi, L. Psychiatry of Late Life, Psychogeriatric Care in the Community.

Jolley, D. Health Trends, 1980, 12:1.

Jolley, D., and Arie, T. The psychiatry of late life; Making services work: Organization and style of psychogeriatric services, 1982.

Millar, and Toynbee, The Guardian. Manchester, England, 1982.

Neary, D. Presenile dementia and cortical atrophy. Manuscript submitted for publication.

Neilsen, 1962.

Opit, L.J. Domiciliary care for the elderly sick--Economy or neglect? British Medical Journal, 1977, 1, 30-33.

Williams, E.I. Characteristics of patients over 75 not seen during one year in general practice. British Medical Journal, 1984, 288.

RESEARCH PRIORITIES IN CHILDREN'S MENTAL HEALTH

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ABSTRACT

A discussion of the wide area of research priorities in mental health reveals a number of points where recent progress has been made. Child and adolescent disorders now exist in standard classifications such as the DSM - III and the ICD - 9. A number of standardized interview schedules also exist, as well as general and specific rating scales. It is now possible to conduct reasonably valid clinical and epidemiological studies.

A recent WHO publication has suggested priorities in child mental health and psychosocial development, especially for developing countries. Many of these concepts can be transposed to service elaboration in more developed countries. In addition, methodologies now exist for general clinical surveys aimed at assessing intervention or research. Given these developments, it is now possible to approach many fundamental questions in child mental health.

I should introduce this paper by observing that it was originally to have been given by Dr. Dan Offord. Hence, I will try to incorporate some of Dan's ideas, as well as my own, in approaching this complex area.

Considerable recent progress has been made in diagnostic and evaluative methods in child psychiatry, so that it is possible to have adequate descriptions and cross-comparisons between studies. The DSM - III classification is now commonly used, following the triaxial classification for children used in the ICD - 9, which is still favoured by those associated with the World Health Organization. In the formulation of the DSM - III, Spitzer, Endicott et al., including particularly child psychiatrists in the Los Angeles area, agreed that the section on children and adolescents in the DSM - III would be used by child psychiatrists for some particular disorders, but that the adult section on major psychiatric disorders - including affective disorders and some aspects of schizophrenia - would also be used for children. Whether this turns out eventually to be a good idea in terms of delineation of relevant clinical groups of children remains to be seen, but at the moment we are using this convention. It has proven to be a useful way of focusing our thinking, but whether it also turns out to be a Procrustean bed remains to be seen, since it does not allow particularly for such factors as age and sex variants, or cultural and cognitive differences.

In order to make accurate diagnoses which have cross-centre validity, it is also necessary to have standardized interview schedules. There are now a number of promising instruments (1). These include the DISC-P for parents, derived from the NIMH Diagnostic Interview Schedule, which can be used by non-clinicians, and especially for epidemiologic studies. The DISC will allow us to make diagnoses according to the DSM - III and to an extent, by the ICD criteria. Another instrument in current use is the KIDDLE-SADS. The SADS interview schedule was originally used by the group investigating affective disorders and schizophrenia, and the KIDDLE-SADS is now widely used by Puig-Antich and others as a standard both for epidemiologic (lifetime) and present state purposes. There are a number of other promising interview schedules, including the Diagnostic Interview for Children and Adolescents (the DICA), developed by Herjanic, which again allows for DSM - III diagnoses.

In addition to such careful interview schedules, there are now a number of standardized general child and adolescent behaviour rating scales. The Achenbach Scale (2) utilizes factor analysis to identify a number of behavioural symptoms in children and adolescents. This is now widely used by both child and adolescent psychiatrists. It has the basic design of any factor derived instrument, and fits rather variably into the DSM - III diagnostic system. By virtue of the fact that it is standardized on a normal population, it is therefore possible for us to compare the intensity of a child's symptoms with those of a comparable age and sex in the normal population. This is an important thing to know for behavioural symptoms which exist on a continuum. Dr. Dan Offord and his group, in a research unit attached to McMaster Medical School, have recently finished a province-wide epidemiologic study involving four common diagnostic categories in children across the province of Ontario. They have used a carefully selected sample of children derived from Statscan and other data, and within the next few months their results will say with some assurance what the prevalence is for such illnesses as attention-deficit disorder, conduct disorder, somatization disorder, or neuroses (ie., DSM - III Anxiety and Depression) across the province of Ontario. I feel that this is going to be a major part of our knowledge base, and we will then know what the prevalence is for particular diagnostic categories anywhere across the province, so that we can compare this with our findings in our own clinical setting. In my own setting, we again use the Achenbach as a basic parent rating instrument.

Another question has to do with what might give rise to an identified case. In this we have rested heavily on some of the conceptual work by Michael Rutter and his group (3), who have pointed out the cumulative notion of psychopathology - that is, if such factors as school difficulties, paternal alcoholism, or maternal mental illness exist in a given family structure, then a number of these must be present before the illness becomes manifest. The corollary to this is, I believe, extremely important: if it is possible to reduce the number of factors below a certain level, say below 3 out of 5, then it is much less likely that the illness will become manifest. A further corollary is that it does not seem to matter very much whether one takes a complicated factor to alter, or a rather simple one. If one considers the implications of this for the practice of child psychiatry, these are really quite extraordinary. Perhaps we should be spending more of our time involved in provision of ordinary or "good enough" experiences, or doing something about the general physical health of one of the parents or of the children, rather than addressing ourselves to historical or intrapsychic determinants, which may take longer to reverse.

In fact, child psychiatry is in an interesting area at the moment, between those who say that it is still the most under-serviced or under-represented specialty in Canada, to those arguing that child psychiatrists are not needed except for very special purposes. It would be relieving, especially for child psychiatrists, to get some finality from these discussions, but probably this is illusory. There are however some interesting approaches to the question.

In a World Health document in 1977 (4), a group with Dr. Sartorius as secretary, along with Dr. Rutter and others, addressed the matter of child mental health and psychosocial development. In this, there was some discussion as to the type of psychosocial services for children which might be developed, especially in emerging or third world countries. I would like to summarize this report, since although it is derived for third world countries, it may have profound implications for Canada and other more developed countries. The group pointed out that the first requirement for children was physical, in that it had to do with improved maternal and obstetrical care, with adequate nutrition and effective immunization, and with subsequent adequate general and special medical care. If one compares such matters as infant mortality, the rate in Mexico of 843 per 100,000 compared to 79 per 100,000 in the Netherlands indicates an enormous difference. There are also, of course, rather marked differences in mortality figures across Canada, especially in Indian groups, which make the point here as well. Providing that these basic concepts are adhered to, then the question arises as to what welfare and psychiatric services might or should be doing. It was the opinion of those who wrote the document that one should not concern oneself in childhood with what were in effect transitory phenomena - that is to say, such disorders as enuresis, nail biting, tics, and general nervous habits, because the natural history of these disorders was such that they would get better. However, if one takes the natural history of most childhood mental disorders overall, one-third last at least three years, and a proportion shows neurotic or depressive conditions in later life. This is particularly true for the conduct disorders, which have a well-known poor prognosis which Robins (5), and others have delineated.

Given this rather basic viewpoint, a point could be made for not investing money primarily in complicated psychiatric services until the concerns listed above are addressed. The next thing that the group went on to discuss was whether one should place emphasis on disorders which are relatively rare, such as autism where the incidence is low, although the prevalence is relatively high.

They also suggested that in terms of psychotherapeutic impact, only the simpler behaviour modification, and perhaps cognitive behaviour modifications, as well as focused short-term counselling and drugs, had been shown to have any great impact in terms of symptom change. Hospital treatment and special education or residential services, as well as group therapy and focused family therapy were probably effective but more costly. Personal counselling for predelinquents and unfocused therapy were probably ineffective. They suggest in fact that there is no evidence that long-term psychotherapy, and especially long-term insight psychotherapy has any demonstrated effectiveness. Therefore, the suggestion was made that short-term psychotherapy should be confined to a brief number of sessions, and possibly not be done by psychiatrists. It could be done by non-psychiatric mental health professionals, with psychiatrists being used for diagnosis and for consultation within therapy. I discussed this with Dr. Sartorius, and he remarked that the discussion in the group about this point had been strenuous. However, if one were to argue purely on the basis of findings up until now, these were reasonable premises, especially for developing countries. How much recommendations such as these extend to more developed countries is a matter of opinion.

When one considers the extreme clinical ferment which goes on in the child mental health services between psychiatrists on one hand and other mental health professionals on the other, there is a strong tendency to move away from a vertical system of delivery of services which is psychiatrically oriented, into a more horizontal level of services where all services are for all children, and where anybody in effect can do anything. There is some discussion that psychiatrists are possibly needed for the most severe cases, but other than this the assumption of equal competence appears to be entertained. Interestingly, on the basis of surveys recently held in our own area, the populace at large is fairly comfortable with the idea of a generic mental health professional, but for anything that sounds more complicated, they have a preference for a higher trained professional. In fact, we have been through this argument a number of times, as in the matter of physicians versus nurse practitioners.

From this general overview of the field - part fact and part opinion - one might move on to the question of just how a particular notion of therapeutic service or intervention might be investigated. In this Dan Offord has some sage advice. A general model for intervention or delivery of an interventional programme, which he recently presented (6), is as follows. First, it is necessary to have some concept of the burden of suffering; then, one needs some discussion about etiology, along with efficacy trials, some concept of effectiveness, and ultimately a trial of efficiency. I will deal with these concepts as Dan has described them.

In terms of the burden of suffering, it is necessary to consider four dimensions. One is - how many children are affected by this condition? You will recall my remarks on autism. Second, how badly off were these children during childhood; how much distress did their condition cause? Did the disturbance proceed into adulthood? There is still little information on adult morbidity consequent on childhood psychiatric illness, where one could be sure that the condition is a consequence of what happened when the patient was a child. Despite what some child psychiatrists think, there are in fact formative and interesting things that happened to people after the age of 12. Moreover, some of the "irreversible" childhood traumata turn out to be reasonably reversible. For example, most individuals from unhappy homes are said to have stable marriages, and continuities over three generations are less frequent than in those over two (4). Against a background of scarce resources, it is useful to know which children are likely to have lifelong disturbances, so that an appropriate portion of resources could be allocated to the subgroup. (This of course assumes an equal therapeutic effect for all subgroups!)

The concept of resource allocation in terms of burden of suffering as distinct from clinical interest is a rather different way of looking at delivering resources. It is important to establish the extent of suffering not only to convince oneself that the problem merits attention, but in order to provide compelling arguments to governments and others for clinical research and teaching endeavors in the field.

Next, in the matter of etiology, a distinction has to be drawn between the risk factor or condition, and the sequelae. The fact that the risk condition exists as such does not necessarily lead to a particular condition. Moreover, programmes aimed at attacking risk factors, such as those dealing with prevention of divorce or separation, would be different from those attacking the subsequent harmful sequelae to children following separation and divorce. These are different questions, leading to different modes of intervention, and possibly forestalling different clinical conditions.

Again it is necessary to know more about why some children are affected and others are not. There is, of course, the very interesting invulnerability literature that Garmezy (7) and others have contributed to. There is also the useful concept of causal chains. If A leads to B which in turn leads to C, is it necessary that B always be presented before C occurs, or can A lead to C directly? In such a causative chain, certain factors act additively, whereas others act in synergy so that "one and one equals three". However, even though we need to know much more about these factors, we cannot wait until all is known before intervening. Therefore, it will be necessary to have intervention programmes mounted on the basis of inadequate data, purely to see how things turn out.

The next area to focus on is a trial of efficacy. In such a trial, there must be a stable, describable programme in place which gives all the appearances of working successfully. It is important to note that the efficacy trials are not only restricted to the mental health field. For example, as Dr. Webster was discussing, these could be carried out in the legal field, or in the interface between medical and legal areas. Certain factors should be borne in mind for such an efficacy trial. The goal must be specific, and there must be some relationship between the literature on the subject and the suggested goals. One must ideally have some theoretic underpinning as to why a particular intervention is chosen. The sample should be clearly described; for example, no intervention is likely to work across the board for all children affected by separation and divorce.

There are therefore important subgroups which one should define ahead of time; each is likely to respond to different packages, and the programme to be evaluated should therefore be limited to the clearly defined subgroup.

With regard to design, the preferred way of testing an intervention programme is to use a trial where subjects are randomly assigned to a treatment or control condition, or to two different treatment conditions. The intervention must be reproducible - preferably somewhere else - and the compliance must be ensured. It is possible to look at such preventive interventions on a community-wide, milestone or high-risk basis.

For example, in the case of separation and divorce, the extent of the problem may be too widespread for a case-by-case approach. Hence it is essential to consider a large scale community intervention. However, such large scale programmes also involve mislabelling children who are not in need of help. Once again, until one can identify with some precision the subgroup of children to be affected, it is necessary to be careful in interventions, so that a pilot project even for very prevalent disorders would be preferable.

Dan Offord makes a case for psychometrically sound instruments being essential, with a wide variety of outcome measures to be applied to the focus of the study. It will be recalled that in the Headstart Programme, initially the outcome measures were too narrow, missing a number of positive effects that eventually came out of the programme. Again, in the outcome studies for schizophrenia that Dr. Wattie was talking about this morning, the outcome criteria needed to be very broadly defined.

There are two final issues; one is that there should be an effectiveness trial to show what particular factors have allowed the intervention to succeed, and to see how this might be applied to other settings. For example, it is often a concern that programmes could be class-linked, so that the middle class might get the particular services. There is a responsibility to ensure that interventions go across classes.

How to utilize findings in other areas, or with other clinicians is an intriguing area. Finally, there is the concept of efficiency, with interventions applied on a wide scale without being too costly. Once an efficient programme has been discovered, it should be retested to establish whether after all it is now possible to reduce the initially defined burden of suffering.

In summary, Dr. Offord's work suggests that it is necessary to go in and see what is happening to people during particular stress, in terms of subjective, socioeconomic and other areas of functioning. We need more research on etiology and on efficacy, along with more intervention programmes, and when these are obtained, we need to network to establish efficiency and to show reduced burden of suffering.

Network is one of these rather marvelous words which implies that we mental health workers get together and share reports with colleagues who are just as delighted with our results as we are. In practice many of our colleagues are underwhelmed by our results, and tend to be fascinated by their own intriguing findings. Hence, there needs to be some discussion as to who has the most important findings, and when some consensus is eventually achieved, it is necessary to transmit these findings to governments.

A number of speakers has described the fact that there is a time lag, whose etiology and dynamics are not known, in having research findings enacted by governments. Provided that important facts are repeated often enough, in a way which transcends the jargon barriers between clinicians and politicians, it should be possible to talk fairly comfortably to politicians. For example, one can now discuss the deleterious effects of multiple placements. It is also possible to talk of more positive findings; for example, the overall effects of any separation are less disastrous than orginally felt. Children are more plastic than we thought, so that it is possible to do a great deal of fairly simple primary prevention and intervention.

In conclusion, it seems that in child psychiatry, and in child mental health services in general, we have now come a long way in terms of our methodology. We have reasonable diagnostic systems, and a number of formalized informational systems and standard interviews which are reliable, and give us a degree of credibility in talking with our colleagues about particular disorders. This I believe is a notable advance. Next we have managed to put together some reasonable ways of doing community surveys, and to consider particular illness episodes in terms of incidence and prevalence, general effects, and outcome, especially after intervention. We have begun to look at the question of which disorders might be addressed first with scarce resources. We are also engaged in assessing the effects of psychopharmacologic and psychotherapeutic intervention on particular target symptoms.

I believe that we are in a period of healthy interchange between the mental health disciplines. This is not necessarily an easy time since child psychiatry has always co-existed with articulate and highly competent professional disciplines in other child mental health fields. But I do trust that, on the basis of our new capacity to know what we are talking about, with target areas for intervention and with reasonable goals set for achievement, we will be able to move from the initial series of 90 degree flip-flops from vertical psychiatric hierarchies to horizontal Renaissance man fantasies and back again, into the bliss of the 45 degrees position that Dr. Sartorius described for us.

Summary

In discussing the wide area of research priorities in mental health, a number of points emerge where recent progress has been made. Child and adolescent disorders now exist in standard classifications such as the DSM - III and the ICD - 9. A number of standardized interview schedules also exist, as well as general and specific rating scales. It is now possible to conduct reasonably valid clinical and epidemiological studies.

A recent WHO publication has suggested priorities in child mental health and psychosocial development, especially for developing countries. Many of these concepts can be transposed to service elaboration in more developed

countries. In addition, methodologies now exist for general clinical surveys aimed at assessing intervention or research. Given these developments, it is now possible to approach many fundamental questions in child mental health.

References

1. Puig-Antich, J., Chambers, W. and Tabrizi, M. The Clinical Assessment of Current Depressive Episodes in Children: Interviews with Parents and Children. In Affective Disorders in Childhood and Adolescence. An Update. Cantwell, E. & Carlson, D. (Eds), New York, S.P. Books, 1983, pp 157-179.

2. Achenbach, T.M. The Child Behaviour Profile: An Empirically Based System for Assessing Children's Behaviour Problems and Competencies. International Journal of Mental Health, 1979, 7, 24-42.

3. Rutter, M.L. Protective Factors in Children's Responses to Stress and Disadvantage. In Primary Prevention of Psychopathology. Vol. III. Kent, M. & Rolf, J. (Eds), University Press of New England, 1979, pp 49-74.

4. World Health Organization. Child Mental Health and Psychosocial Development. Technical Report #613, WHO, Geneva, 1977.

5. Robins, L.N. Deviant Children Grown Up. Baltimore, Williams & Wilkins, 1966.

6. Offord, D. Synthesis of Discussion on Services. Paper presented to the Federal Conference on Children Affected by Separation and Divorce. Ottawa, 1984.

7. Garmezy, N. The Study of Competence of Children at Risk for Severe Psychopathology. In Anthony, E.J. and Koupernik, C. (Eds) The Child and his Family: Children at Psychiatric Risk. New York, John Wiley, 1974, pp 77-98.

VALUES AND BELIEFS COME FIRST
AN INTRODUCTION TO THE WORKSHOP

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In the current, 30th Anniversary issue of Canada's Mental Health (December, 1983), there is an article by Aldred Neufeldt entitled "Searching for new directions in mental health services ... for new times." This theme will run through our symposium, particularly in the small group discussions in which you will be asked to suggest the ways and means, the mechanisms by which research findings can be translated into priorities. Let me quote from Neufeldt's article:

> A great problem is the very nature of the assumptions used. Planners of all stripes have tended to assume that what we need to know is more and more facts, when what actually is needed is more knowledge of values.

He says we have enough facts but we need to attend to values. We need to have clear principles on which to base priorities.

Values and attitudes have long been one focus of Canadian researchers. More than twenty-five years ago, Closed Ranks by Cummings and Cummings described a community's attitudes and showed how people close ranks against those whom they do not understand. The mentally ill were extruded to a distant mental hospital, for example. The book also illustrated the ineffectiveness of their efforts to shift public attitudes through educational programs. Ego and Milieu, by the same authors, described the hidden messages, forces, and beliefs within the distant hospital which influenced both patient and staff behaviour. This book had considerable impact on priorities and practices on the early 1960s, as did The Mental Ward by Morgan Martin. One of his beliefs was that admission must only be granted by those responsible for treatment, a revolutionary position at the time. People had usually been brought to the doorstep and certified by someone else, someone who was not responsible for treatment and rehabilitation.

In 1977 the CMHA published a study, part of which described values and attitudes shaping mental health services across Canada at that time. A section of that study in which I was personally involved consisted of interviews with leaders in our field, particularly those in provincial governments responsible for mental health services and for health planning.

In most provinces, mental hospitals and their staff had taken a profound change in direction. The change reflected the recommendations of "More for the Mind," and the hard work and dedication of countless public servants and professionals. Mental hospitals were seen as bad; de-institutionalization was good.

"The battleships of the prairies have gone." This simple phrase was used by an Assistant Deputy Minister to describe the change. But where had they gone? There were many different answers; I will quote three which I believe illustrate the centrality of values:

"We've returned to the multiple madhouse system," one critic proclaimed. In another province, a man with great political power said "I am determined to see Mental Hospitals closed. Psychiatric treatment, like any other specialty, belongs with the general hospital, the private practitioner, the free enterprise system." And in another province, an observer commented, "Here we're anti-specialist, especially when it comes to the psychiatrist. Professionals reproduce themselves until you have professionals running out of your ears. Most people need practical things. Here, nursing training is central."

These statements were made by policy-makers within mental health services. It would seem that very different beliefs automatically determined which of several alternatives became available to patients.

Too often, in the absence of immediately relevant data, policy-makers and those in planning have been forced to rely on their own perceptions and beliefs.

Let me now quote "health planners". Many in health planning have had great difficulty in understanding and conceptualizing the mental health care system.

One of these planners observed, for example, that "We didn't get the earth-diggers out in mental health like we did in studying the other specialties. So far we've relied solely on the political people for major decisions." From another province came the observation that "We have not looked at mental health. Our first concern has been the hospitals and primary care." And a representative from another province has commented that "Health planners have not been able to grasp what's going on in mental health. When I go in there, it's like punching a feather. You're lucky to escape even if you come out with nothing. They're not good at putting their case forward nor in seeing their empire in terms of the whole." And finally, a positive comment: "We need to get together somehow. We need a common language."

How is Change Achieved?

Of particular relevance to this symposium are the beliefs (values and attitudes) of key people responsible for determining priorities and effecting change. The question which must be asked is how change can be achieved.

This symposium has brought together a mixture of researchers, clinicians, educators, and administrators. Some wear only one hat; many wear two or more. Thus each workshop will have many different perspectives and diverse experience. The summaries of your discussion are bound to be the most important product of this symposium, indeed its reason for being.

Before we break for discussion, let me list some common beliefs about ways of effecting change.

The first is the belief that changing one major thing will lead to changes in the rest. I quote two of you in support of this belief: "Within our mental hospital system the change to lay administrators was the turning point" was one of your comments, while another has urged "Decentralize. Central authority cannot possibly be responsible for everything that happens in this gargantua. With regional boards there will be local authority and local accountability."

How else can change be achieved? A second belief relies on ground-breaking research. Quoting one of you again, "Of first importance is research that will allow breakthroughs in treatment. Penicillin, tranquilizers, and lithium are examples."

A third means of effecting change is to set up another system entirely. This time I quote from the CMHA study:

> "In this province the general hospital units did more to change mental hospitals in recent years than anything we could have done inside the system. Today we must do this again, but this time it is the new primary care structure that will change the present patterns of service..."

A fourth way of promoting change is to change the inter-relationships between the various disciplines involved. This attitude is clearly demonstrated in the following quotation: "This was our aim in the north: to change the relationships between our mental health services, the agencies, the general practitioners, the magistrates."

There are still other ways of achieving change. Some of these rely on the power of certain people, on personalitities, and on solid information, as the following quotations suggest: "The regional directors must have leadership qualities and capable staff...persons skilled in finance, research planning and information systems"; "Clout comes from information. Whether it's with the minister of local school board, I've never had problems if I had solid information to give. People change when they understand the issues."

Each of these beliefs is valid, but it is also a fact that a few professionals do not trust them, believing instead that change can be brought about only with external pressures. Some feel that the courts must be used militantly by consumers and advocates before major change can occur. Others express doubt in the language of their own political ideology that anything short of major socio-economic change can humanize those parts of the present system which harm and stigmatize. Still others believe that the educational system is the key.

In this introduction to the workshops, I have attempted to illustrate how a host of values and beliefs shape the direction and parameters of possible change. Among these we must include our own assumptions.

You are now asked to ride the bounds, to consider the mental health field generally, to bring your own knowledge and experience to the discussions. Recommend or chart some of the "ways and means" in which research findings can be translated into priorities.

WORKSHOP REPORTS

The participants in this symposium came from varied backgrounds, professions, and responsibilities--from the planning and administration of mental health services to very specialized areas of research. The group included researchers, clinicians, educators, and administrators. The symposium offered an opportunity to bring very different perspectives to a discussion of research findings and their significance in setting priorities.

Each workshop group was asked to consider the mental health field generally as it discussed and summarized the following:

1. known facts which should determine priorities
2. areas where further research is crucial
3. major gaps in the application of research findings to service delivery
4. recommendations concerning mechanisms by which research findings can effectively influence priorities.

Participants chose one of four specific populations for focus during the workshop discussion:

1. The Alcoholic
2. The Chronic Patient
3. Children
4. The Aged

As a result of two workshop sessions each, the four groups presented the following summaries of their discussions and recommendations.

The Alcoholic

Report by Dr. Robert Duguay

Recent studies have suggested that 12% of adult health-care costs in Canada are due to alcohol-related problems and that approximately 25% of the adult male population in Canada has a problem with alcohol. Of these people, 20% may be classified as problem drinkers while 5% may be designated as "alcoholics." The latter category meets such criteria for alcohol dependence as alcohol withdrawal symptoms and a sense of impaired control over drinking. These statistics may be even more dramatic among certain

Canadian populations such as native people, though the lack of precise epidemiologics studies and important interpretive difficulties require caution in reaching firm conclusions (Heath, 1983).

Recent research, however, has provided the following important information:

1. Many problem drinkers never seek formal treatment.
2. Socially stable individuals at early stages of problem drinking may have a better prognosis.
3. The severity of alcohol dependence may be a critical variable for deciding between abstinence versus moderation-drinking goals.
4. Intensive treatments appear to be no more effective than brief interventions for many persons with alcohol-related problems.

Consequently, screening techniques should be developed in order to detect problem drinkers as early as possible since early detection along with prompt and brief interventions may improve the prognosis significantly for some persons.

It should, however, be recongized that notions of early detection and preventive intervention are based on the assumption that a problem exists which, if not dealt with, will inevitably progress in a linear manner. While in some instances alcohol-related problems fit this model, for the most part they do not (Cahalan, 1970; Clark and Cahalan, 1976). Moreover, in the present state of knowledge it is not possible to distinguish individuals who will pursue an inexorable downhill course from those who will have an intermittent, non-progressive problem. Such considerations do not necessarily negate the potential value of early detection and preventive intervention, but do tend to place added emphasis upon the need to develop highly efficient means of accomplishing both. Simple, low-cost, and highly effective methods of early detection and intervention may have a reasonable claim to widespread application even if their absolute necessity in every case cannot conclusively be demonstrated.

In the light of these findings, further research is crucial to enhance our understanding of the phenomenon of alcohol-related problems. This complex phenomenon is still incompletely understood. It appears also that therapeutic interventions should not be applied to a given patient or to a given population unless a methodical and comprehensive assessment of the factors involved and the strengths and weaknesses of each individual has been done. There seems to be a consensus to regard the problem of alcohol as resulting from a multiplicity of factors for which there are a multiplicity of therapeutic approaches. Consequently, treatments should be matched to problems (Glaser, 1980; Glaser, Annis, Skinner, Pearlman, Segal, Sisson, Ogborne, Bohnen, Gazda, & Zimmerman, 1984; Glaser & Skinner, 1981; Skinner, 1981). We also endorse the importance of early identification of the problems by means of systematic assessment (through the use, for example, of questionnaires and micro-computers, as mentioned by Dr. Skinner) and of the implementation of early interventions, with the reservation noted above.

At the primary level of prevention, the use of the media, education, and control-regulatory mechanisms through political decisions should be considered. Evidence for the unique effects of any of these approaches alone is lacking. But it is felt that their *combined* effects very importantly lower the probability of risk of the development of alcohol-related problems (ARF Task Force Report, 1981).

References

Cahalan, Don. *Problem drinkers: A national survey*. San Francisco: Jossey-Bass, 1970.

Clark, Walter B., & Cahalan, Don. Changes in problem drinking over a four-year span. *Addictive Behaviors*, 1976, *1*, 251-259.

Glaser, Frederick B. Anybody got a match? Treatment research and the matching hypothesis. In Griffith Edwards & Marcus Grant (Eds.), *Alcoholism treatment in transition*. London: Croom Helm, 1980.

Glaser, Frederick B.; Annis, Helen M.; Skinner, Harvey A.; Pearlman, Shelly; Segal, Ruth L; Sisson, Barry; Ogborne, Alan C.; Bohnen, Elizabeth; Gazda, Paul; & Zimmerman, Torbin. *A system of health care delivery*. 3 volumes. Toronto: Addiction Research Foundation, 1984 (in press).

Glaser, Frederick B., & Skinner, Harvey A. Matching in the real world: A practical approach. In Edward A. Gottheil, Thomas McLellan, & Keith A. Druley (Eds.), *Matching patient needs and treatment methods in alcoholism and drug abuse*. Springfield: Charles C. Thomas, 1981.

Heath, Dwight B. Alcohol use among North American Indians: A cross-cultural survey of patterns and problems. In Reginald G. Smart, Frederick B. Glaser, Yedy Israel, Harold Kalant, Robert E. Popham, & Wolfgang Schmidt (Eds.), *Research advances in alcohol and drug problems*, Volume 7. New York: Plenum Press, 1983.

Schankula, Henry J. (Chairman). *Alcohol: Public education and social policy*. Report of the Task Force on Public Education and Social Policy. Toronto: Addiction Research Foundation, 1981.

Skinner, Harvey A. "Different strokes for different folks": Differential treatment for alcohol abuse. In Roger E. Meyer et al. (Eds.), *Evaluation of the alcoholic: Implications for research, theory, and treatment*. Rockville, Maryland, National Institute on Alcohol Abuse and Alcoholism, Research Monograph #5, 1981, pp. 349-367.

The Chronic Patient

Report by Dr. John Toews

In beginning by attempting to define the chronic patient, the group decided that it was not possible in the time we had to come to a definition that would be satisfactory to us. Many research studies in the past have used easy measures such as length of time in hospital, length of time in care, and numbers of admissions to hospital, as indicators of the chronic patient. With our current state of knowledge, we must now start to look at functional definitions of the chronic patient, that is, to what extent they are persistently functionally impaired by the disease process that they are experiencing. If we can discover good functional measures, we will be less reliant on numbers of admissions to hospital which vary widely depending on available space, the particular philosophy of the community, and the orientation in terms of a community versus a hospital basis.

Generally we agreed that we now know how to prevent a rehospitalization. In most instances, rehospitalization can be prevented by the use of consistent follow-up and medication. However, we don't know how to make someone functional. We still lack a full understanding of how to move people, especially the more severely impaired people, from the hospital into an adequate community adjustment. We are particularly deficient in the kinds of research necessary to deal with the question of the quality of life of individuals. We are not sure of the factors that will promote a good adjustment and a personal sense of value and worth. While still deficient, epidemiological, pharmacological, and physiological research has outstripped social research in recent years.

Specific topics felt to be in need of urgent research emphasis tended to be clustered in the sociological area and in aspects of the service system. The following are the areas where we believe further research is crucial:

1. Our knowledge is inadequate on how to tailor treatment specifically to the individual. We still use a "class" model--the "chronic patient"--as if there were a homogeneity in the chronic patient when we know there are a number of subgroups. Even within major diagnoses we have different clusters of people with somewhat different needs. So we have remained at a broad class level without going to a sub-class level yet, let alone an individual level.

2. Psychosocial rehabilitation processes require study.

   - What are the functional deficits?

   - How can they be consistently and readily identified?

   - Do we have specific remedial techniques?

   - What is the impact of the locus of care on the individual?

3. What are the characteristics of programs and places that provide good care? Dr. Wattie mentioned some of these in her talk yesterday. We envisioned a broad study that defined outcomes. We wondered what the characteristics of the places with good or bad outcomes might be and whether we could isolate these factors to use them as guidelines for the design of services.

4. What is the nature of the social interaction of the chronically mentally ill? Here we thought specifically of the schizophrenic group and their social needs. Because their social interaction is of a different quality, we sometimes think it is absent, yet it is there. What are the specific social needs and social interaction patterns that we need to be aware of when we design residential and treatment programs?

5. The self-help phenomenon demands study. It carries the elements of social interaction and of the kinds of help patients can give one another. Why do some groups require more professional input than others? Are there ways we can pick up deficits and work with them in order to bring about change?

6. What makes a therapeutic milieu? What are the characteristics both within the hospital and within the community that provide a viable therapeutic milieu for people? Because the problems of the chronically mentally ill tend to be urban more than rural problems, there is a need for an intense sociological and social-geographical analysis of the city. This means that we need to look at residential patterns, transportation patterns, and other such patterns that allow groupings of these people to live well and ably within the complex environment of the city.

7. What is happening to staff morale in provincial hospitals? Has the morale been shifted by the process of decentralization to such an extent that they can no longer be therapeutic? Should mental hospitals exist in any form? If so, what is their particular role? Have general hospital units deficits in the kinds of care they can give?

8. We need to look carefully at the new chronic, the one who has not been institutionalized. Here there is a need for intensive epidemiological and phenomenological research at this time.

9. We need to look at the role of public education. There has been little effect on easing the plight of the chronically mentally ill through public education. Dr. Leighton suggested that we should instead focus on education directed at changing society's defensive reactions to insanity and the mentally ill.

10. We need to look at models of service administration. Often there is a split between problems that belong to health and problems that belong to welfare. What are the models that bring together these two components that are so essential to the care of the chronically mentally ill?

With regard to moving from research to policy, we saw the need for interventions at the level of elected government, at the level of senior officials, and at the level of practitioners. In each of these spheres attitudes can potentially be changes.

Children

Report by Dr. Brian McConville

We began with a direct question put to us by Mr. Remple who is involved in the delivery of mental health services. This set the tone for our discussion. His very real problem is that soon, under the Young Offenders' Act, mental health facilities for children will be overwhelmed by a number of probably inadequately diagnosed children and adolescents who will be put into mental health facilities for assessment and possibly treatment. That led us into the matter of what one could do for some diagnostic categories and on which diagnostic categories one should put money, resources, and expertise.

In the field of conduct disorders there is a lot known about the prognosis for severe conduct disorders--the prognosis is not good--and the therapeutic modalities which work. That got us into the meat of the matter which is the question of diagnosis. There will clearly be a large number of children who are misdiagnosed, children in whom there is an underlying or even primary depression or tension deficit disorder or learning disorder. The facts about this particular group are well known, that they not only have conduct disorders, they tend to be from low socio-economic classes, they have horrendous learning problems, and they have low self-esteem. In our discussion we expanded this concept beyond various clinical diagnostic assessments to social dynamics. That led to the matter of the general societal context in which things evolve and whether we should then look at factors such as unemployment determining the influx of children at particular times. As clinicians we do not easily think in this way, but the group agreed that we should start thinking in this way. We need to be able to do both a clinical and a social diagnosis in order to make an impact.

In a general sense these facts are known and provide a framework for determining priorities. There is also the question of how to utilize resources, not overspending on rarer syndromes such as autism or childhood psychosis, yet continuing to ensure that these children are looked after. Another area where more needs to be known is in the field of attention deficit disorder and childhood affective disorders. Here again we are making some headway. As a general rule of thumb, the group thought that we should be guided by the burden of suffering and by the frequency of a particular disorder for deciding where to put our resources.

Having dealt to some extent with diagnosis, we moved on to treatment. Here much work needs to be done, not only in the area of phenomenologic diagnosis but also in terms of what groupings of symptoms might be looked at and what strategies might be employed with what outcomes. We need to think not only in terms of the individual child but also in terms of the family, the community, or an overall societal change. An example of the last would be a study of the effect of the recent divorce law on children who will then be associated with it.

We believe that there are certainly gaps in the application of research findings. For example there are gaps in the application with regard to multiple placements, to our knowledge of conduct disorders, to our knowledge of the cumulative process of stress. But more particularly, we were impressed by the fact that the traditional way in which clinicians have approached governments may already be superceded. Hopefully there may be a chance that governments and clinicians and clinical researchers will now be able to come together to set joint priorities on areas where there is a need to know. The need to know could transcend individual clinicians and individual researchers, and could move more into the social dynamic concept of large social and environmental changes which sweep through the system from time to time.

Finally, there was discussion in our group of the increasing influx of law and lawyers into the mental health and social service provision systems. At the moment we are involved in a basic discussion about the right for treatment as distinct from the right against treatment. When treatment providers are arguing for particular patterns of treatment or service provision and the legal exponents are arguing for individual rights against treatment, we see an urgent need for the parties involved to engage in dialogue to decide what they are supposed to be doing.

In summary, we now know much more about diagnosis and about priorities but our diagnostic and priorizing system tends to suffer from tunnel vision. It needs to be seen more in a societal context. We need much more research in this area. We need joint involvement among clinicians, researchers, and governments regarding the ways by which services should be provided. The notion of contract research could be helpful in this area.

The Aged

Report by Dr. H.B. Kedward

The first class of known fact which determines priorities is the demographic imperative and all these data point to the symposium topic pure and unadulterated, that is, not the modification or improvement of Human Service Systems--for none exist--but the creation of one or more as a demonstration model.

The second class of known fact relates to comprehensive systems of care established in other countries. The priorities for Canada which may be derived from study of those systems are, first, definition of the range and scope of the service and, second, agreement on mechanisms of coordinating the several elements, that is, health service disciplines.

A number of specific items are included under these headings. These are mentioned separately later but these general priorities are regarded as sufficiently important to be addressed urgently. The urgency is for a policy decision.

It is thought that they are so important that this national issue should be the subject of a Royal Commission on the Centralized Planning of Mental Health and Social Services for the Aged. Such a mandate would emphasize coordination and a Royal Commission would give the needs of the aged a higher profile.

The group found that discussion of the first charge given us included much material on the third, that is, "gaps in the application of research findings to service systems." Partly as an explanation of the reasons why we have not successfully established comprehensive systems, it was pointed out that nowhere do we have all the pieces of social support in place to cater for a staging model of service. However, the group members do not think that this should prevent further development. It is suggested that in the beginning the "least intensive levels" should be introduced, such as the following:

1. making available to family doctors a specialist assessment service (to do this in the homes would require additions to the physicians' fee for service in the absence of sessional contracts)

2. social support provision in the homes (here monetary compensation for relatives for loss of working time was mentioned. Also tax incentives can do much to persuade the advantages of Home Care.)

3. day centre places.

These are all low intensity measures that can be introduced through the staging of levels of intervention.

The group endorses the comprehensive service and the ad hoc or piecemeal introduction of the last intensive levels. This would anticipate the eventual complete service.

First, the comprehensive service would serve a catchment area. Second, it would have the resources of hospital beds, day hospital places, social workers, and community nurses. It is recommended that coordination of the comprehensive service be encouraged through responsibility, for example, cost linkages among social services, health, and municipility. These valuable connections can be clearly seen when municipal housing for the aged is required.

The second question, that is, where further research is needed, led to a number of recommendations:

1. The characterization of populations

2. The definition of the functional capacities of individuals, for example, cognitive assessment in relation to diagnosis and clinical features

3. Therapeutic and management studies, for example, the filled-box anatomical model of the brain in contrast to the stretched muscle physiological model

4. Studies of falling and incontinence--studies to define the causes and the possibilities for prevention

5. Studies of the determinants of family decisions to keep an aged relative at home.

With regard to mechanisms by which research findings can effectively influence priorities, we make the following recommendations:

1. Operating pilots with evaluation should be created to test and assess models of service.

2. Care should be taken with which each discipline, either geriatrics or psychogeriatrics, is linked. For example, if geriatrics is linked with internal medicine, it would be subjected to an inference which would reduce the likelihood of there being a policy of domiciliary visits widely pursued.

3. Family practice should be developed as an academic in addition to its service-provision function, because this discipline is central to the management and co-ordination in the community sector.

4. Because of the obstacles to interesting physicians in the work with the elderly, sessional fees for specialists should be offered at a competitive level.

5. Also the range of supports with quality control should be wide in order to help the entry of physicians into those institutional alternatives to hospitalization, such as old people's homes and perhaps sheltered housing.

6. Transportation should be arranged to make possible the use of a range of options. (This, we were told, was given by Dr. Arie as the most important functional measure to ensure that the broad U.K. system worked.)

So we ended with details but remind you of the first steps we advise--there is urgent need for Demonstration Models and for a federal study to join the social services and health in a policy statement.

Key Note Address

THE IMPORTANCE OF PRIORITIES IN THE MENTAL HEALTH FIELD

ALEXANDER LEIGHTON
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Perhaps I should first explain what it was suggested I try to do at this point in our symposium. The ideal was that I should reflect on what the symposium has taught me and then react in terms of research experiences and perspectives.

Dr. Sartorius gave us a clear, chilling, and brilliant summary of the difficulties inherent in applying the results of scientific research to mental illness services. I think what he was saying was summed up in a story that the social scientists and psychiatrists used to console each other with during World War II when we were trying to get the decision-makers to pay attention to our findings. The story was that the decision-makers use science the way a drunk uses a lamp-post: more for support than for illumination.

Speakers subsequent to Norman have implied other impediments to adequate services, but have mostly emphasized the research and organizational steps necessary for improved services, with priorities as an important part of instrumentation.

I thought I might begin by drawing attention to the historic perspective in which our problems and preoccupations are set, as a way of emphasizing some common features. After this I would like to add something to what has been said about the mountains of barriers that stand in our way, and then on this basis enlarge a bit on the reasons why priorities are vitally important. At the end I shall venture some suggestions for concrete steps toward creating priorities that would be acceptable and recognized.

One of the gravest problems facing those who are concerned with mental illnesses--whether as patients, patients' families, or professionals--is the inability of society to create and maintain adequate systems of care for these disorders. As Kathleen Jones (19) has pointed out, "reforms in mental health have been characterized by a peak-trough movement." History, she says, shows that peaks of enthusiasm have been followed by long-lasting troughs composed of "low motivation and confused purpose in which it was difficult to see any clear direction." This is in contrast to the cumulative character of development in other "areas of public social policy, such as care of children, or care of the elderly."

This last point is particularly pertinent to our symposium. There is something special about the mental illness field and it faces problems that are more severe than in most other public policy arenas. I shall come back to this again a little later.

The peak-trough business has been going on since the days of Pinel and his moral treatment. Scientific concepts and endeavours have often been a part of these movements over the last 200 years, but in every case scientific considerations have sooner or later been swept away by strong emotions of many forms. These emotions in turn have spawned multiple and very often impractical goals leading to the slope from peak to trough. It was often as if the goals were animals competing for scarce resources and ending up exterminating each other.

Against this background I should like to sketch for you impressions I have of four major sets of factors that stand in the way of service development in the mental illness field.

My sources are primarily two. The first is a case study of a small, free mental health centre founded by colleagues and me in 1951 as part of the Stirling County Study in Nova Scotia. The intention was to demonstrate that the majority of people with mental illnesses can best be treated in their own communities; that preventing mental illnesses and promoting mental health are also feasible goals; and that the involvement of members of the community in such a program not only strengthens the program, but also increases the ability of the community to recognize and cope more effectively with many of its own psychological and social problems. The case study took the form of an ongoing examination of the centre's operations from the beginning in 1951 until 1972 when data-gathering was arbitrarily suspended in order to concentrate on analysis. This research provided a window through which we were able to observe at a microcosmic level the social and psychological processes that governed the functioning of the centre.

The second source of impressions was a longitudinal, epidemiologic study of the centre's catchment area during approximately the same period of time. In this research, prevalence and incidence rates of mental illnesses were ascertained from probability samples of the population at large, giving information on the untreated as well as the treated individuals living in the catchment area. It may be noted that these surveys, like those in Norway and Sweden, were based on diagnostic procedures, not on global estimates of mental health or mental illness.

The first barrier I want to mention is the one already touched upon, namely the emotions generated by mental illness. Much of this reaction can be summed up by the word fear. Encounter with these disorders, especially psychoses, provokes strong, fearful emotions in many persons. Even mere discussion of the topic may have this effect. There appears to be something primordial and existential about this, like the fear of death. The very thought of mad men and mad women has elements of the dire about it.

People react to these feelings as they do to other unpleasant emotions and display the well known mechanisms of avoidance and denial. This in turn plays its part in producing the disadvantaged position of mental illness services compared to other services, as observed by Jones. In our case-study of the mental health centre, denial and avoidance both interfered strongly with our plans to involve members of the population in the policies of the centre. This applied not only to difficulty in recruiting people to serve on the Board of Directors, but also to how the Board, once formed, dealt with the problems it faced. The members habitually used words like "mental health" as a comforting cloak that enabled them to avoid assembling specific facts. As a result their efforts to analyse and solve were cloudy and separated from reality by a wall of vague abstractions. It would almost seem that mental disorders have a tendency to scatter the wits and freeze the faculties of the non-ill as well as the ill.

One of the by-products of this emotionalism and reaction to mental illness is the spinning off of a very large number of goals for mental illness services, a figure that increases by some astronomical amount when "mental health" is substituted for "mental illnesses". The field becomes choked with goals, but, alas, not with resources.

The second barrier for mention here is very largely a product of the first and consists in a tendency to lump all mental illnesses together. Most members of the public, writers for the media, nearly all policy-makers, and many psychiatrists, psychologists, social workers, nurses, and educators speak about mental illness as if it were all "one thing". From a policy as well as a scientific point of view, this is a serious error. The phenomena seen in psychiatric hospitals, outpatient services, and private practice are heterogeneous, and have many different symptomatic patterns and causes that often require very different forms of treatment and care. Consider, for example, the range from brain syndrome through psychoneurosis to personality disorder. Or ponder the fact that not only are these syndromes dissimilar, but so also are their etiologies (to the extent these are known) comprising many different combinations of genetic, traumatic, infectious, degenerative, psychological, societal, and cultural influences. The same applies to the variation of responses to treatments which extended from good to intractable in the face of every attempted remedy. Lump-speaking about such heterogeneity leads people to misrepresent reality, make erroneous policy decisions, and distort the information transmitted to the public.

It has been notable during this symposium that several contributors have stressed the importance of keeping in mind the heterogeneity of the disorders to which are applied such terms as chronic mental illness, substance abuse, and schizophrenia.

The third barrier is the overwhelming prevalence rates of mental illnesses when all are considered collectively. Studies conducted in the United Kingdom, United States, Norway, Sweden, and numerous other countries, show prevalence rates that range from about 15% to about 25%. Our own studies in Stirling County, Nova Scotia, indicate a rate of about 20%, in other words the middle of the range.

The size of these numbers immediately raises questions of validity. As we have seen at this meeting, during the last fifteen years there has been a growing effort to render diagnoses in psychiatry more standardized and objective. One can therefore now justifiably say that the illnesses reflected in the above rates are those recognized by practising physicians and exclude people with the milder reactive conditions that are sometimes referred to as being "worried well" or as having "problems of living". The criteria for inclusion are in the main those of ICD-9 and DSM-III.

If then the figures are valid, it becomes evident that in no country, including Canada, have the plans for mental health services ever been drawn up in terms that are realistic. All services are far short of meeting the needs revealed by the figures, with the result that large numbers of mentally ill people are now underserved, badly served, or not served at all. There is also reason to suspect that in many places the least ill consume a disproportionate amount of the resources available. It is not surprising if many decision-makers are reluctant to open such a can of worms and would rather look the other way.

I won't give more time now to the prevalence and incidence rates and their powerful implications. This ground was exceedingly well covered in this symposium by Dr. Bland, Dr. Hennen with his overview of the contribution of the general and family practitioner, and by others who talked about subsets of the total of mentally ill people, others such as Dr. McConville and Dr. Kedward.

The fourth barrier to service provision is not one that attaches closely just to mental illness services as did the previous three, but rather to all service enterprises. It consists in the rate of change going on in the society in which we live. This accelerated rate of change is a problem because it makes the services developed and designed today obsolete before they are in place. Furthermore, even though it affects all services and social organizations, it additionally has its special contribution to mental illnesses. It is itself a source of stress to individuals, especially when it is very rapid and disorganized. And so it is a contributor not only to the problems of service planning and building but also directly to the population of mentally ill people.

To sum up what I have said thus far, the need for priorities in mental illness services can be said to stem from two major considerations: one is composed of the formidable barriers just described that limit the resources available to mentally ill people and to those who wish to provide them with services; and the other consists of the extraordinary multiplicity of goals which exert a disorganizing drain on the resources that are available. This was true in the microcosm of our rural mental health centre and it has been true across the two hundred years that mark the rise of modern psychiatry.

From the great mental hospital movement which began early in the nineteenth century to the present-day community mental health centre movement, there have been repeated efforts to achieve goals that turned out to be remote from the resources that society could or would sustain. Disastrous rebounds have then taken place wih high expectation followed by loss of public confidence leading to bewildering reversals of policy and the abandonment of mentally ill persons. Commonly, it was the severely and chronically ill individuals who endured the brunt of the consequences.

Multiple goals that scatter resources and overambitious goals that drain them lead to what I like to call the "Fatal Trilogy", namely underestimation of patient load, inadequate staffing, and insufficient funds. Let us consider them briefly.

Policies and plans have repeatedly been made without regard to the magnitude of the problem it was proposed to tackle. As a rule, no information was sought or utilized regarding the numbers of people in the population who would be candidates for care in the proposed facilities--whether hospitals, mental hygiene clinics, or mental health centres. There was also a lack of knowledge as to what proportion of the potential clients had severe, chronic disabilities and would require long-term care.

What followed was that in each movement the care-giving institutions created were overwhelmed by demands for their services. Overloading with patients meant, of course, that the planned level of staffing for the services envisioned in each movement would not, under the best of circumstances, have been nearly enough. It turned out, however, that even if there had been no overloading, there would still not have been sufficient resources in personnel. Across all the years from moral treatment to the present, two types of deficiencies have been repeatedly observed and complained about. One is lack of numbers: the sheer inability to find enough people to enable hospitals, clinics, and community services to run properly. The second is qualitative: a significant proportion of the alienists, psychiatrists, psychologists, social workers, counsellors, nurses, and attendants who were found lacked adequate training or motivation or both.

What needs to be recognized is that providing high-level care for persons with serious mental disorders is exceedingly difficult to do. It requires individuals with interests, abilities, training, and levels of dedication that are not common among us. In short, while the goals and plans for services in the various care and prevention movements have underestimated the magnitude of the tasks they set, they considerably overestimated society's ability to supply the necessary manpower.

The third element in the fatal trilogy is overestimating society's ability and willingness to supply the requisite funding. With the exception of peak periods of enthusiasm, the money for the care and prevention movements has never been enough to ensure success even if all other obstacles have been absent. During the rise of each movement, the participants' hopes and plans have generally kept well ahead of actual funding. As the decline of movements sets in, the participants have tended to fight rear-guard actions, making adjustments to what they trusted would be only a temporary necessity.

The fatal trilogy of overcrowding, inadequate staffing, and underfinancing has produced incompetent and damaging institutions with the regularity of moon- and sun-producing tides. These facts have been persistently evident for almost two hundred years and just as persistently people have avoided facing them and looked elsewhere for explanations.

We who are enthusiasts for the control and prevention of mental illness, like other enthusiasts, are apt to regard those who oppose us as malign. Yet the central issue is not humane concern versus indifference and selfishness, real as these are, but rather the management of limited resources, of making difficult choices among different kinds of humane goals, as well as among objectives related to human survival. Poverty, malnutrition, crime, nuclear control, environmental pollution, and national defense are but a few examples of other need areas that also require our support. The choices are difficult but it is essential that they be made and they be made well. In these days, none of us can afford to be parochial.

The first step toward establishing priorities is to achieve consensus with regard to criteria for those priorities. In an article he wrote a few years ago, Sartorius (19) proposed three important candidates for criteria: treatability, prevalence, and disability. While these fit very well with the conclusions we have reached in our research, I would be inclined to begin with a fourth category, namely seriousness. It is fortunate that in this regard we have some advantages today that did not formerly exist. Among these is the current surge of interest in nosology, as has been emphasized repeatedly in this symposium. There is an implicit hierarchy of seriousness among some of the resultant diagnostic categories so that schizophrenia, for example, is more serious than anxiety due to the fact that the prognosis is by and large much worse.

Another criteria is one that Dr. Bland touched upon, namely disability. This is an area in which scientific instrumentation--both clinical and epidemiologic--is as yet poorly developed and poorly utilized. As Dr. Bland has said, the evolution of sharp and practicable criteria for disability, and its companion, outcomes, require methodologic development.

The treatability of the different categories of mental illnesses constitutes another set of criteria. As everyone knows, there are now some medications and forms of treatment, such as chlorpromazine, lithium, and behaviour modification, that are effective with a significant proportion of cases in some of the diagnostic categories. Research, not only with regard to medications, but also with regard to psychotherapy, is now proceeding at a lively rate and one can expect that in the foreseeable future these advances will continue. Criteria in this field, therefore, need to be established with an eye to frequent revision and modification of their weight in determining priorities.

The prevalence of disorders in the population provides, as we have noted, the basis for still another group of criteria. These could be based on the commonsense notion that, other criteria aside, the more widespread a disorder in the population, the more it should command attention. Prevalence rates become particularly relevant when they are combined with measures of disability. It is an area, however, in which much more active research is needed, and, again, the development of this could be an important contribution.

With these four criteria in mind, I would like to suggest that the time is now at hand for the holding of conferences and the making of position papers among professionals and mental health associations on these and other criteria with a view to ultimate crystalization of standard, codified priorities.

In offering this suggestion, I do not underestimate the disagreements that will arise. There are, however, grounds for some optimism that in time these can be overcome. Many participants in the mental illness field are much more aware now than formerly of its shortcomings. Primary caregivers, who commonly treat more psychiatric patients than anyone else, as Dr. Hennen pointed out, are moving toward a more frank, less evasive, and less idiosyncratic way of dealing with mental illnesses. Academic psychiatry is becoming more objective and less ideological. Epidemiology has developed to a point where it is now capable of gathering both heuristic and useful information about the distribution of mental illnesses in populations, about the factors associated with them, and about the impact of mental health services on their courses and outcomes.

Exceedingly hopeful and instructive, I believe, is the model provided by the way DSM-III was achieved. Many prophets, including myself, would have said it was impossible. Yet Spitzer and his colleagues through a process of successive approximations, through meetings among all groups interested, whether in favour or in opposition, was able eventually to hammer out a concensus which, while not universal, was large enough to permit major advances in treatment, teaching, administration, and research. Something similar can be done with criteria for priorities. It is therefore appropriate to ask policy-makers and planners in governments to help move us along.

In concluding, I would like to raise the question as to whether this symposium might be the start of a new thrust toward establishing agreed-upon criteria for priorities. Very likely this could best be done through simultaneous groups working on different topics, starting with the ones we have used here: children, the elderly, the chronic patient, the alcoholic. One would want to add to this list the anxious and depressed who consume, through the general and family practitioners, a very large part of the treatment that is given.

There are many other groups and divisions that one can think of. The point would be to get a process going that would produce papers for comparison, reconsideration, reformulation, discussion, and synthesis.

Research priorities could emerge from this, but I would think it best to begin with the criteria for service provision and let the research follow on the heels of that. Solidarity among professionals about such an issue as criteria and priorities would strengthen our ability to get respectful attention from the public and from decision-makers.

CONCLUDING REMARKS

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We started with a concern over the way in which priorities were or were not being set, with a general feeling that they were not being set in any consistent fashion. There was also a distinct feeling that scientific findings are not taken into account in priority-setting nor in service delivery. We wanted to examine the research findings relative to priorities in service. We selected somewhat arbitrarily several specified groups: the aged, children, forensic, the chronic patient, and the alcoholic. Dr. Sartorius described this as a good example of horizontal thinking. But we also had another dimension. We dealt with diagnosis, prevalence, disability, treatability, and preventability. That gives us two dimensions.

Dr. Sartorius touched on other points. One is scepticism: everyone really knows that scientists are irresponsible and can't agree among themselves anyway, so you have to be careful about doing anything they suggest! He mentioned that the findings must be believable, presentable, understandable, and eye-catching. In this we are helped by the press. We cannot ignore the press which does at least as much to create policy as do scientists.

We fall into difficulties by promising too much and delivering too little. Thus we lose credibility.

There is also some confusion among what are policies, priorities, goals, objectives, procedures, management, services, and therapeutic modalities. It is not easy to sort out which is which. If policy is the politicians' prerogative, where do they turn for advice? Unless we as professionals or scientists in mental health appreciate what politicians' policies and priorities are, we won't fit our programs in and we won't get attention. If mental health is seen as having some political advantage, then it will become important to them.

We have looked at improved epidemiology, we have looked at targeted biochemical efforts, we have talked about lacking adequate disability measures, we have talked about more data on prevention, and we have talked about social measures and mental health in the broader context of society.

Out of all this, is it possible to develop national priorities? Dr. Leighton has suggested ways by which we might do this. I wonder if there will be sufficient agreement. We might get agreement on some broad areas with scope for local interpretation.

Dr. Sartorius also mentioned the length of time between findings and programs--a 20-year gap. We have certainly seen this time-lag in the effects of public health campaigns on smoking and alcoholism and perhaps it applies in other areas.

We have not mentioned the role of leadership, motivation, and management in services. I suspect that this is lacking in many national and provincial programs. Although one may have the best evidence to do something, if no one is prepared to take the leadership role and have a dedicated and enthusiastic professional staff, then the best evidence will have little impact. Consequently I wonder if leadership, motivation, and management should in themselves be a priority if we expect something to happen.